

Diversity, Distribution Pattern and Traditional Uses of Medicinal Plants in Inderkila National Park of Himachal Pradesh, North Western Himalaya, India

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ABSTRACT: The Indian Himalayan Region (IHR) harbors a vast range of medicinal plants, yet several protected areas in Himachal Pradesh remain insufficiently investigated. One such unexplored region is Inderkila National Park, situated in the Kullu district of Himachal Pradesh, India. To address the existing research gap, an extensive survey was carried out from 2016 to 2023 to assess the medicinal plant diversity of Inderkila National Park. The study documented 563 species of medicinal plants, spanning 282 genera and 80 families. Among these, 386 species were found to be native, 130 were near-endemic, and 17 were endemic. Local communities traditionally utilize various plant parts to treat ailments such as, cough, cold, fever, wounds, cuts, blood disorders, liver and kidney issues, and as remedies for snake and insect bites. However, many of these species are facing a sharp decline due to unsustainable harvesting, habitat loss, and environmental changes. This requires regular ecological monitoring including quadrat-based assessments and awareness-building initiatives among both local residents and forest officials, to ensure sustainable usage and conservation of these valuable plant resources.

Keywords: Diversity, Distribution, Medicinal Plants, Traditional Uses, Ailments, Native, Endemic, Conservation.

INTRODUCTION

The Indian Himalayan Region (IHR) is a significant center of medicinal plant diversity and has supported traditional healing systems for centuries. Communities inhabiting this region have long relied on the therapeutic potential of native plants to treat a wide range of health disorders. Recognized as one of the world's biodiversity hotspots (Myers *et al.*, 2000), the richness of plant life in the Himalaya is attributed to its diverse biogeographic zones (Samant & Dhar 1997). The region is home to approximately 18,440 plant species spanning various ecosystems (Singh & Hajra 1996; Samant *et al.*, 1998), including 1,748 species with medicinal value, 675 wild edible plants (Samant & Dhar 1997), 118 aromatic species with medicinal properties (Samant & Palni 2000), and 155 sacred plants (Samant & Pant 2003).

The majority of the Himalayan population resides in rural villages, where people rely extensively on local biodiversity for their basic needs *i.e.*, medicine, food, fodder, fuel, fiber, timber, agricultural implements, and religious purposes (Samant *et al.*, 1998, 2007; Rana & Samant 2011). Over generations, communities in this ecologically fragile terrain have developed rich ethnobotanical knowledge systems rooted in tradition and sustainable use practices.

Inderkila National Park, located in the North-Western Himalaya, represents a vital ecological zone, rich in sensitive and rare biodiversity elements. This includes medicinal, wild edible, native, endemic, and threatened plant species. Due to the Park's remote location, local inhabitants remain heavily dependent on naturally available plant resources for their daily needs. In particular, they rely on medicinal plants, often prescribed by traditional healers known as *Vaidyas*, for healthcare and wellbeing. However, overharvesting, along with intense grazing pressure in alpine meadows, has posed serious threats to many rare medicinal plant species. These pressures emphasize the need for immediate conservation actions and sustainable management strategies to ensure the long-term viability of this natural heritage. Traditional knowledge system also warrants systematic documentation and preservation. Although extensive research has been conducted on the medicinal plants of the IHR (Jain, 1991; Samant *et al.*, 1998; Rai *et al.*, 2000; Semwal *et al.*, 2007; Pant *et al.*, 2009; Lone *et al.*, 2014; Malik *et al.*, 2015; Sharma *et al.*, 2015; Pandey *et al.*, 2017; Mehta *et al.*, 2021; Kumari & Verma 2022;), studies specifically focused on Himachal Pradesh also exist (Negi & Bhalla 2002; Chauhan, 2003; Samant *et al.*, 2007; Subramani *et al.*, 2007; Singh *et al.*, 2009; Negi

& Chauhan 2009; Rana & Samant 2011; Vidyarthi *et al.*, 2013; Sharma *et al.*, 2014; Kumar *et al.*, 2015; Thakur *et al.*, 2016; Sharma *et al.*, 2017 a & b; Bodh *et al.*, 2018; Kumari *et al.*, 2018, 2019; Kumar and Duggal 2019, Devi *et al.*, 2019 a&b; Lamo *et al.*, 2019; Radha *et al.*, 2019, Rana *et al.*, 2019; Verma and Kapoor 2019, Kundra *et al.*, 2020 a & b; Devi *et al.*, 2020; Radha *et al.*, 2021, Rana *et al.*, 2021; Barman *et al.*, 2021 a & b; Sharma and Bhardwaj 2022, Wani *et al.*, 2022). However, a review of the existing literature shows that a very few studies have investigated medicinal plant diversity in the protected areas of the state (Subramani *et al.*, 2007; Singh *et al.*, 2009; Rana & Samant 2011; Lal & Samant, 2015; Sharma *et al.*, 2017 a & b; Bodh *et al.*, 2018; Kumar *et al.*, 2019, 2021; Devi *et al.*, 2019 a & b; Janjua, *et al.*, 2020; and Kumari & Verma, 2022).

Notably, no prior research has been reported for Inderkila National Park.

The present study was therefore undertaken to:

- (i) assess the diversity and distribution of medicinal plants of Inderkila National Park.
- (ii) analyze the nativity and endemism;
- (iii) document indigenous uses and traditional knowledge associated with these plants.
- (iv) suggest conservation and sustainable management strategies.

Study area. The Inderkila National Park (32°13'8.45"N to 32°20'25.218"N and 77°14'12.897"E to 77°20'51.738"E), one of the five designated National Parks of Himachal Pradesh in the northwestern Himalaya, is situated in the northern part of Kullu District, within Manali Tehsil. It spans an area of approximately 104 km² and exhibits a wide altitudinal range from 2800 to 5200 m amsl. The region, particularly around Hamta Pass (Dasila *et al.*, 2020), is characterized by prominent glacial landforms, diverse

climatic regimes, and high-altitude biodiversity.

Vehicular access extends up to Sethan village, beyond which well-developed footpaths maintained by the Kullu Forest Department provide entry into the deeper regions of the park. Certain remote zones remain largely inaccessible, posing logistical challenges for scientific research and biodiversity assessments.

Inderkila National Park represents a critical site for ecological and climatological research, offering a unique altitudinal gradient ideal for studying species adaptation, vegetation dynamics, and climate-biodiversity interactions in the Himalayan ecosystem.

The Park's core zone lacks the permanent human habitation, but nearby villages at the periphery rely on its ecosystem services such as, grazing, fuelwood, and minor forest produce. High-altitude grasslands known locally as *thatches*, located between Hamta Pass and the cold desert region of Lahaul-Spiti, serve as seasonal campsites for transhumant pastoralists, notably the *Gaddis* of the Lesser Himalaya during their summer migrations.

The Park harbors a diverse assemblage of alpine and sub-alpine flora. A variety of wildflowers, medicinal herbs, and orchid species thrive between 2800 and 4500 m. On clear days, panoramic views of major peaks such as Indrasan (6,221 m) and Deo Tibba (6,001 m) enhance the region's scenic and scientific significance.

The vegetation zones are distinctly stratified as sub-alpine forests (2800–3800 m) are dominated by broad-leaved deciduous species such as *Acer acuminatum*, *Betula utilis*, and broad-leaved evergreen conifers including *Abies pindrow* and *Quercus semecarpifolia*. Above this, alpine meadows and scrublands (above 3800 m) are characterized by dwarf *rhododendrons*, herbaceous plants, and alpine scrubs, adapted to the harsh climatic conditions of higher elevations.

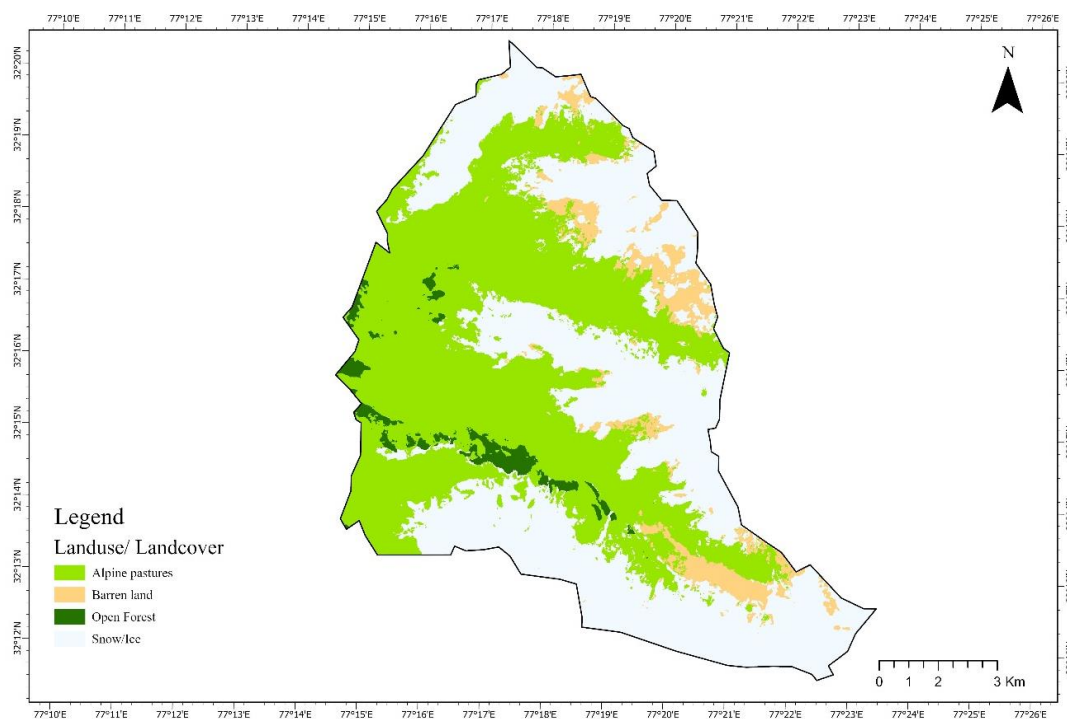


Fig. 1. Map of Inderkila National Park.

METHODOLOGY

The present study was conducted through extensive field surveys carried out between 2016 and 2023 in Inderkila National Park and its adjoining villages, namely Sethan, Shuru, Prini, Shaminala, and Jagatsukh in the Kullu district of Himachal Pradesh, India. The primary aim was to document medicinal plant diversity and traditional knowledge associated with their use. In each village, local knowledge holders and traditional healers (*Hindu Vaidyas and Buddhist lama*) were interviewed to gather information on the utilization patterns of medicinal plants. Additionally, one knowledgeable individual from each village was engaged to assist in plant collection and fieldwork. Plant specimens were collected from their natural habitats across various altitudinal zones and ecological settings. For each species, data were recorded on vernacular name, altitude range, habit, habitat, life form, part(s) used, and medicinal applications. Ethnobotanical information, including indigenous practices and use values, was gathered using semi-structured interviews, informal and open-ended discussions. These interactions were primarily conducted in the local Kulluvi dialect and, when necessary, in Hindi to facilitate clear communication. Identification of collected specimens was carried out using regional and national floras, including those by Aswal & Mehrotra (1994); Chowdhery & Wadhwa (1984); Singh & Rawat (2000); Sharma & Dhaliwal (1997). Scientific names were verified and standardized according to the World Flora Online (<https://wfoplantlist.org>). The nativity of species was assessed using references such as the Index Kewensis, International Plant Name Index, and relevant floristic works (Samant *et al.*, 1998; Samant, 1999), while endemism was determined based on the work of Dhar & Samant (1993); Samant *et al.* (1998). Species confined to the Indian Himalayan Region were classified as endemic, while those with distribution extended to adjacent Himalayan regions, including Afghanistan, Pakistan, Tibet, Nepal, and Bhutan, were considered near-endemic.

Traditional preparation methods of medicines were also documented. For external use, plant part(s) were typically crushed into a paste and applied directly to the affected area. For internal diseases/ailments, preparations included decoctions or pastes mixed with water, administered according to customary dosage. To ensure reliability, data collected during field surveys were cross-referenced with published ethnobotanical literature (Jain, 1991; Samant & Pant 2006; Samant *et al.*, 2007; Rana & Samant 2011; Sharma & Samant 2014; Lal & Samant 2015; Pandey & Singh 2016; Kumar *et al.*, 2019, Kumar and Duggal 2019).

RESULTS

Diversity and distribution pattern. A total of 563 species (Angiosperms: 524; Gymnosperms: 06; Pteridophytes: 33) of the medicinal plants belonging to 80 families and 282 genera were recorded (Table 1). These species were represented by trees (14 spp.), shrubs (69 spp.), herbs (447 spp.) and ferns (33 spp.). 79 species of Asteraceae were being used ethnobotanically, followed by Rosaceae and Ranunculaceae (34 spp. each), Lamiaceae (26 spp.), Apiaceae (24 spp.) and Polygonaceae (23 spp.), Orchidaceae (19 spp.), Gentianaceae (16 spp.), Orobanchaceae (15 spp.), Fabaceae (14 spp.), Caprifoliaceae, Caryophyllaceae and Poaceae (12 spp. each), Boraginaceae (11 spp.) and Nineteen (19) families were represented by only 1 species. The high diversity of medicinal plants clearly indicated that the area has diverse topographical gradients which provide the suitable environment for the growth and development of medicinal plants. Among the genera, *Pedicularis* (12 spp.), *Thalictrum* (10 spp. each), *Potentilla* and *Saussurea* (09 spp. each), *Lonicera* and *Primula* (08 spp.) were the species rich genera (Table 1).

Altitudinal distribution. Maximum richness of medicinal plants (Total 545 spp.: Herbs: 431 spp.; Shrubs: 67 spp.; Trees: 14 spp.; Ferns: 33 spp.) were found in the altitudinal zone 2800-3800 m, followed by 177 species in the altitudinal zone > 3800 m (Fig. 2; Table 1 and 3).

Table 1: Diversity, Distribution, Nativity, Endemism and Traditional Uses of Vascular Plants in Inderkila National Park, Himachal Pradesh, North Western Himalaya.

ANGIOSPERMS								
Taxa/Family	Vernacular Name	LF	Nativity	Endemism	Altitudinal Range	Habitat	Part Used	Traditional Medicinal Uses
ACANTHACEAE								
<i>Strobilanthes atropurpurea</i> Nees*	Dhurpa	H	Reg Himal	NE	2800-3000	2,7,8,10	Leaves, Roots	Treats fever and skin infections, and in rheumatism.
<i>Strobilanthes wallichii</i> Nees*	-	H	Reg Himal	NE	3000-3300	2,7,8,10	Roots, Flowers	Used for muscle inflammation, and pain relief, and in rheumatism.
AMARANTHACEAE								
<i>Achyranthes aspera</i> L.	Puthkanda	H	Geront Trop	-	2800-3200	1, 3, 7, 9	Whole plant, Root, Leaves	The root, leaves, and seeds are most commonly utilized, with uses ranging from wound healing and anti-inflammatory. Insect repellent properties to digestive and respiratory support. Used for asthma, cough, snakebite, rheumatism, skin diseases, and insect repellent.
<i>Chenopodium album</i> L.	Bathua	H	Europe, as	-	3000-4000	10,1,2,5	Whole plant	Used as a digestive, laxative, carminative, and anthelmintic. Also useful in treating liver disorders and skin infections. Diarrhoea, burns, joints pain and leukoderma, intestinal worms, piles, and skin eruptions.

<i>Chenopodium foliosum</i> Asch.	Batthu	H	Iran		2800-3000	1, 2, 3	Leaves, young shoots	Used for healing wounds, dysentery, digestion problems. Known as leafy goosefoot. Traditionally used for blood purification, digestive issues, and as a mild laxative.
AMARYLLIDACEAE								
<i>Allium humile</i> Kunth.*	Farn	H	Reg Himal	NE	3000-4000	1,6,2	Whole plant	Used traditionally for treating various ailments including stomach disorders.
<i>Allium victorialis</i> L.	Pyaju	H	Europe Caucus Sibir	-	2800-3000	2	Whole plant	The root has antiscorbutic, carminative, diuretic, and vermifuge properties, and is used to treat profuse menstruation.
<i>Allium wallichii</i> Kunth.	Lal pyaz	H	Reg Himal China		2800-3300	2	Whole plant	Used for treating conditions like altitude sickness, cough, cholera, and dysentery.
APIACEAE								
<i>Angelica archangelica</i> L.	Padali	H	Europe Asia	-	2800-3400	2,7,10	Leaf, Stem, Root, Seeds	Traditionally used in combined herbal medicine.
<i>Angelica glauca</i> Edgew.**	Chora	H	Reg Himal	E	3300-4000	2,6,7,10	Root, Seeds, Rhizome	The roots are traditionally used to treat stomach ailments, and the essential oils extracted from them are valued for their aroma and potential health benefits.
<i>Bupleurum falcatum</i> L.	Nimla/ Jungli jeera	H	Europe		2800-3500	2,4,6,8	Roots	It's particularly valued for its potential to treat stomach pain and other digestive issues, and it's also explored for its anti-inflammatory and antiviral properties. Used for stomach inflammation, fever and liver complaints.
<i>Bupleurum lanceolatum</i> Wall. ex DC.*	Nimla	H	Reg Himal	NE	2800	1, 2, 5	Root	Use for stomach inflammation, fever and liver complaints as folk medicine.
<i>Bupleurum longicaule</i> var. <i>franchetii</i> H.Boiss ieu*	-	H	Reg Himal	NE	2800-4000	1, 8, 9	Roots	Use for stomach inflammation, fever and liver complaints as folk medicine.
<i>Carum carvi</i> L.	Gyaju, Gurnu	H	Europe Oriens As bor		2800-3200	1, 3, 7, 9	Seed, Fruit	Used for herbal tea making which directly or indirectly helps digestion, hypolipidemia, cancer, fat control and diabetes and other ailments.
<i>Chaerophyllum reflexum</i> Aitch.	Bhae	H	Reg Himal		2800-3600	2,3,6,7,8	Roots, leaves, seeds	Roots are used in traditional remedies for indigestion, flatulence, and intestinal colic.
<i>Chaerophyllum villosum</i> Wall. ex DC.*	Bhae	H	Reg Himal	NE	2800-3600	2,5,6,7,8,9,10	Seed	Used for medicinal purposes, particularly by high-altitude tribal communities.
<i>Conioselinum tataricum</i> Hoffm. Cl.	--	H	Reg Himal		3600-4000	2,6,7,10	Whole plant	Used for heart, atherosclerosis, cancer of the prostate, stomach, lung and skin.
<i>Cortia depressa</i> (D.Don) C.Norman*	--	H	Reg Himal	NE	3200-4000	1,5,6,8	Roots	Used in Ayurveda and Unani system of medicine.
<i>Heracleum candicans</i> Wall. ex DC. *	Padiyala	H	Reg Himal	NE	2800-3600	1,2,4,5,6,7,8,9,10	Roots	Used for skin disease, eczema and itches and relieving from joint pain.
<i>Hymenidium brunonis</i> Lindl.		H	Reg Himal		3200-4000	1, 3, 7, 9	Leaves, flowers	For example, dried powdered leaves are used to treat dysentery and fever. The juice or extract of the plant is taken orally, while the flower powder is mixed with water to create a paste for skin diseases.
<i>Hymenidium densiflorum</i> Lindl.	Losar	H	Reg Himal		3600-4000	1,2,4,6,9,10	Leaves, flowers	Used for its aromatic properties, particularly as a herbal perfume and incense.
<i>Hymenolaena candollei</i> DC.	Sanjeevani	H	Reg Himal		3600-4000	1,2,4,5,6,9,10	Whole plant	Used for treating stomach problems, abdominal issues, and reducing cholesterol and blood pressure. The stem powder is also used for joint and back pain. Additionally, it's used for headaches, fevers, and even diarrhoea in animals.
<i>Ligusticopsis wallichiana</i> (DC.) Pimenov and Kljuykov*		H	Reg Himal	NE	3600-4000	7,10	Roots	Used for treating epilepsy, seizures, hysteria, and other neurological disorders.
<i>Pimpinella acuminata</i> C.B. Cl.**	--	H	Reg Himal	E	2800-3600	7,10	Whole plant	Used to treat fever, wounds, skin problems, and potentially for other ailments like cough, pain, and diarrhoea.
<i>Pimpinella diversifolia</i> DC.	-	H	Reg Himal		2900-3400	1, 3, 7, 9	Seeds	Seeds are traditionally used for lactation. The entire plant, including leaves, roots, and fruits, may also be used for various medicinal purposes, such as carminative properties, treatment of stomach disorders, and cold and coughs.
<i>Pleurospermum diversifolia</i> DC.*	--	H	Ind Or	NE	2800-3600	6,9,10	Root	Used for gastric complaints, while the leaves are used by tribal people for bronchitis and asthma. Additionally, the inner bark may be used for constipation, and the cones for diuretic and purgative effects.
<i>Pterocyclus angelicoides</i> Klotzsch	--	H	Reg Himal		3600-4000	2,4,5,6,9,10	Roots	Stomach-ache and gastric complaints.
<i>Sanicula elata</i> Buch. -Ham. ex D. Don	-	H	Reg Himal Europe As Bor Afr Austr		3000-3400	1, 3, 7, 9	Whole plant	Used in traditional medicine for treating skin conditions, digestive problems, and as a source of dietary fibre.
<i>Selinum vaginatum</i> C.B. Cl.	Bhootkeshi /Nauki/Mat oshal	H	Reg Himal		2800-3600	1,2,5,6,7,8,9,10	Roots	Used for treating epilepsy, seizures, mental illness, hysteria, and even toothaches.
<i>Semenovia brunonis</i> (DC.) X.L.Guo,	--	H	Reg Himal		2800-3600	1,2,5,9,10	Whole plant	Used for the treatment of tuberculosis.

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<i>Tetrataenium wallichii</i> (DC.) Manden.	-	H	Reg Himal		3000-3400	1,2,4,5,6,7,8,9,10	Seeds, Roots	Used for its medicinal properties, utilized for curing different ailments.
<i>Trachydium roylei</i> Lindl.	-	H	Reg Himal		3000-4270	5, 8, 9, 10	Whole plant	Used in traditional medicine for treating various ailments particularly in treating inflammation, leukoderma, and skin diseases, and as a nerve tonic and aphrodisiac.
APOCYNACEAE								
<i>Vincetoxicum hirsutaria</i> Medik.	-	H	Europe Reg Cauc		2800-3000	1, 2	Whole plant	Traditionally utilized to treat boils and pimples. The plant is also known to have diaphoretic, diuretic, and emetic properties, and is used in the treatment of dropsy.
ARACEAE								
<i>Arisaema flavum</i> (Wall.) Schott.	Kira aloo	H	Arab		2800-3500	2,6,8,10	Rhizomes	Traditionally utilized to treat strokes, hemiplegia, fever, epilepsy, cancer, vertigo, and tetanus. Additionally, they are believed to aid digestion and alleviate gastrointestinal discomforts like indigestion and stomach cramps.
<i>Arisaema intermedium</i> Bl.*	Kira aloo	H	Reg Himal	NE	2800-3400	7,10	Tubers	Used to treat epilepsy, tetanus, and cough.
<i>Arisaema jacquemontii</i> Bl.*	Kira aloo	H	Reg Himal	NE	2800-3600	7,8,10	Tubers	Tubers are antidote of snakebite.
<i>Arisaema tortuosum</i> (Wall.) Schott	Kira aloo	H	Reg Himal		2800-3200	1, 3, 7, 9	Tubers, Rhizomes	Employed for treating snakebites, used to address digestive issues, such as constipation, indigestion, abdominal pain, and dysentery.
ARALIACEAE								
<i>Aralia cachemirica</i> Decne*	Bailchora	Sh	Reg Himal	NE	3600-4000	2,5,8	Roots, Leaves	Used for stomach disorders, cough, bronchitis, and inflammation.
<i>Hedera nepalensis</i> K. Koch	--	Sh	Europe Afr Bor As Temp		2800	10	Leaves, Stem	Used for diaphoretic, cold, cough, stimulant, cathartic and rheumatism. Effective against respiratory ailments, arthritis, and as an antifungal.
ASPARGACEAE								
<i>Maianthemum purpureum</i> (Wall.) LaFrankie	-	H	Reg Himal Amer		2900-3200	2,6,7,9,10	Aerial Parts	Traditionally used to treat fever, cough, pain and wounds.
<i>Polygonatum cirrhifolium</i> (Wall.) Royle*	Saalam Mishri	H	Reg Himal As Bor	NE	2800-3400	1, 3, 7, 9	Rhizomes, Leaves	Used as a tonic, appetizer, immunity booster and aphrodisiac.
<i>Polygonatum multiflorum</i> (L.) All.	Saalam Mishri	H	Europe As Bor Reg Himal Afghan		2800-3400	1,2,5,6,8,9	Rhizomes/Rhizomes	Used to improve eyesight, alleviate abdominal pain, and is believed to prevent bruising and stimulate tissue repair. Additionally, it serves as a tonic, appetizer, and aphrodisiac.
<i>Polygonatum verticillatum</i> (L.) All.	Saalam Mishri	H	Europe As Bor		3000-3700	1,2,5,6,8,9	Aerial parts, Rhizomes	The aerial parts are used for their antipyretic, anticonvulsant, antimalarial, and antioxidant properties, rhizomes are used in Ayurvedic formulations like <i>Chyavanprash</i> and other traditional remedies.
ASTERACEAE								
<i>Achillea millefolium</i> L.	Pharangi, Gondana	H	Europe Oriens As Amer		2800-3700	1,2,5,6,10	Leaves, flowers	Traditionally used for wound healing, digestive issues, fevers, and menstrual pain. Exhibits anti-inflammatory and antimicrobial properties.
<i>Adenocaulon bicolor</i> Hk.*	--	H	As Bor	NE	2800-3000	6	Aerial parts, Leaves	Leaves applied as poultice for boils and scrofula sores, consumed with oil and salt and to cure tuberculosis.
<i>Ainsliaea aptera</i> DC.*	Karu-buti	H	Reg Himal	NE	2800-3600	2,6,7,8,9,10	Roots	Root decoction used for stomach-ache, fever, and urinary diseases.
<i>Ainsliaea latifolia</i> (D. Don) Sch.-Bip.	Sath jalari	H	Reg Himal		2800-3000	1, 2,7,8,10	Roots	Used in treating colic, diabetes, digestive disorders, skin diseases, and stomach ache.
<i>Allardia tomentosa</i> Decne.	-	H	Reg Himal		>4100	8	Whole plant	Used to treat common infections, skin diseases, headache, joint pain arthritis, and rheumatism, exhibits antibacterial activities.
<i>Anaphalioides trinervis</i> (G. Forst.) Anderb.	-	H	N Zel		2800-3900	1, 3, 7, 9	Whole plant	Used to treat diarrhoea, dysentery, and stomach pain.
<i>Anaphalis adnata</i> DC.	Chipru	H	Reg Himal		3600-4000	1,2,3,4,6,8,9,10	Aerial parts	Used to treat diarrhoea, dysentery, and stomach pain.
<i>Anaphalis busua</i> DC.	Bacha	H	Reg Himal		2800-3600	2,6,7,9,10	Aerial parts	Used to treat cuts and wounds, exhibits antibacterial activity.
<i>Anaphalis contorta</i> Hk. f.	Telgang	H	Reg Himal		2800-3600	2,5,7,9,10	Leaves, flowers	Essential oil extract for medicinal properties, used traditionally for aromatherapy.
<i>Anaphalis griffithii</i> Hk. f.**	Bithugha	H	Reg Himal	E	3600-4000	2,6,7,9,10	Aerial parts	Essential oil exhibits antimicrobial properties, traditionally used in folk medicine.
<i>Anaphalis latifolia</i> Kinzik. and Vainberg	Sath jalari	H	Reg Himal		2800-3200	1, 3, 7, 9	Aerial parts	Traditionally used in folk medicine as combination with other herbs.
<i>Anaphalis nepalensis</i> (Spermg.) Hand.-Mazz.	Bacha	H	Reg Himal		3600-4000	6	Leaves, flowering tops, stems.	Traditionally used in folk medicine as combination with other herbs.
<i>Anaphalis triplinervis</i> Sims. ex C.B. Cl.	Bukki, Kutli, Bacha	H	Reg Himal		2800-3600	2,6,7,8,10	Leaves, flowers	Traditionally used for wound healing, as hepatoprotective and exhibits antimicrobial properties.
<i>Arctium lappa</i> L.	Nakli Kuth	H	Europe		2800-3000	1, 3, 5	Roots, leaves, seeds	Root used as food, enhance urine flow, kill germs, fever and purify blood, gastric, burns, repels rodents Used as a "blood purifier" to clear the bloodstream of toxins, diuretic to help

								eliminate excess water, topical remedy for skin problems such as eczema, acne, and psoriasis.
<i>Artemisia indica</i> Willd.	Jhaola	H	Europe Oriens Ind Or		2800-3000	10	Leaves, aerial parts	Used for digestive problems, irregular menstruation, high blood pressure, also used as a sedative, laxative, and liver tonic.
<i>Artemisia maritima</i> Besser	-	H	Europe Reg Caucas Sibir		2800-3800	5	Leaves, flowering tops	Leaves decoction used as insecticide, aromatic, killing harmful germs, essential oil as antibiotic, and abdominal pain. Employed in treating pain, swelling, pinworms, alopecia, indigestion, fever, and difficulty in urination.
<i>Artemisia roxburghiana</i> Besser**	Jonkhar	H	Reg Himal	E	2800-3600	1,2,5,6,7,8,9,10	Aerial parts	Aqueous extract used to treat malaria, dysentery, rheumatism, and viral hepatitis.
<i>Artemisia siversiana</i> Ehrh. ex Willd.	Jhaola	H	Reg Himal		>4100	4	Leaves, flowering stems	Leaves and flowering stems are used in decoction and tonic preparation, externally used as an antiseptic.
<i>Artemisia vestita</i> Wall. ex Besser	Jhaola	H	Reg Himal China		2800-3600	1,6	Leaves	Widely used for treating inflammatory diseases such as contact dermatitis, rheumatoid arthritis, and sepsis, leaves applied externally as haemostatic.
<i>Aster albescent</i> (DC.) Wall. ex Hand.-Mazz.*	Masi	H	Reg Himal	NE	2800-3600	5	Roots	Epilepsy, hysteria and respiratory, exhibits anti-inflammatory and antioxidant properties.
<i>Aster falconeri</i> Hutch.*	Jhau	H	Reg Himal	E	2800-3600	1,2,6,7,8,9,10	Whole plant	Utilized in folk medicine in combination with other herbs.
<i>Aster himalaicus</i> C.B. Cl.	-	H	Reg Himal		2800-4000	5, 8,9,10	Whole plant	Traditional medicine, prescribed for infectious colds and poisoning, applied topically as an antiseptic.
<i>Aster indamellus</i> Grierson	--	H	Reg Himal		3600-4000	2	Roots	Roots are anti-inflammatory, antitussive, depurative, haemostatic, and pectoral. Used in treating coughs, pulmonary affections, and malaria.
<i>Aster thomsonii</i> C.B. Cl.	--	H	Reg Himal		2800-3600	2,6,9,10	Whole plant	Utilized in folk medicine in combination with other herbs.
<i>Athanasia linifolia</i> Burm. f.	--	H	Reg Himal		3600-4000	6	Aerial parts	Prescribed against fever, malaria, skin diseases, jaundice, malignant ulcers, and haemorrhoids, essential oil exhibits antibacterial activity.
<i>Cicerbita zhenduoi</i> (S.W. Liu and T.N.Ho) N. Kilian	-	H	Reg Himal		3000-3400	1, 3, 7, 9	Whole plant	Consumed as decoction in highland tribal medicine. Used to calm nerves or aid sleep.
<i>Cirsium wallichii</i> DC.	Bhoosh	H	Reg Himal		2800	2,5,6,7,8,10	Whole plant	Cough, swelling, headache and pneumonia, used traditionally for treating gastric troubles, kidney stones, and as an antibacterial and antiviral agent.
<i>Cousinia thomsonii</i> C.B. Cl.		H	Reg Himal		2800	1, 3, 7, 9	Roots, leaves	Employed in treating joint pain, swelling, body aches, asthma, dermatitis, cough, and arthritis, exhibits anti-inflammatory and immunomodulatory properties.
<i>Cremanthodium arnicoides</i> R.D. Good	Bhoosh	H	Reg Himal		3000-3400	1,2,6,10	Whole plant	Employed in traditional medicine for treating dysentery and peptic ulcers, possesses anti-inflammatory and analgesic properties.
<i>Cremanthodium ellisii</i> (Hk. f.) Kitam.	--	H	Reg Himal		2800-4500	10	Whole plant	Traditionally used in Buddhist medicine for treating skin diseases.
<i>Cremanthodium nanum</i> (DC.) W.W. Sm.	--	H	Reg Himal		2800-3600	7	Aerial parts	Utilized for its essential oils, exhibits anti-inflammatory and antiseptic properties.
<i>Dolomiaea macrocephala</i> DC. ex Royle	Goggle dhoop, Dhoop	H	Reg Himal		3000-3600	1,2,4,5,6,8,9,10	Roots	Exhibits antioxidant and anti-inflammatory activities, potential applications in treating various diseases, including cancer and cardiovascular disorders.
<i>Doronicum kamaonense</i> (DC.) Alv. Fern.	--	H	Europe		2900-3600	1,2,5,6,8,9,10	Root	Root is an aromatic tonic, used in the treatment of altitude sickness and nervous depression.
<i>Erigeron multiradiatus</i> (Lindl. ex DC.) Benth. and Hk. f.	Shipuk	H	Reg Himal China		3000-3800	6,7,9,10	Whole plant	Employed in traditional Buddhist medicine to treat various inflammatory ailments, including hyperpiesia, enteritis, diarrhoea, and food poisoning.
<i>Gerbera gossypina</i> Beauverd*	Bach	H	Reg Trop Reg Himal	NE	2800	7	Aerial parts	Demonstrates antihelminthic efficacy against gastrointestinal nematodes, also used traditionally for treating inflammation associated with arthritis, rheumatism, and skin irritations.
<i>Gnaphalium coarctatum</i> Willd.	-	H	Chile	-	3000-3800	1, 3, 7, 9	Whole plant	Used in treatments for nervousness and sleeplessness, externally applied as a salve, poultice, body wash, eye wash, and as steam for general aches and pains.
<i>Himalaiella auriculata</i> (DC.) Raab-Straube	--	H	Reg Himal		>4100	2	Roots and leaves	Used for asthma, bronchitis, and chronic cough.
<i>Himalaiella deltoidea</i> (DC.) Raab-Straube	--	H	Reg Himal		2800-3600	2,5,6,7,10	Root, Leaf	Used in dysentery and ulcer.
<i>Himalaiella heteromalla</i> (D.Don) Raab-Straube*	--	H	Nepal	NE	2800-3500	1,2,5,6,8	Seed, Leaves	Carminative, Colic, traditionally used to treat fever, inflammation, skin diseases, and respiratory illnesses such as asthma and bronchitis. Also applied to wounds and cuts.
<i>Hippolytia dolichophylla</i> (Kitam.) K. Bremer and Humphries*	Guggulu/Guggal	H	Reg Himal Mexico	NE	2900-3400	1,2,4,5,6,8,9,10	Flowers, leaves, roots	Used in fever.

<i>Hippolytia tomentosa</i> (DC.) Tzvelev*	--	H	Tibet Occ	NE	3300-3900	2,6,8	Essential oil/ Extract	Essential oil used in aromatherapy.
<i>Inula cappa</i> (Buch. - Ham. ex D. Don) DC.	--	H	Reg Himal		2800-3600	2,6,8,10	Roots	Root juice used in the treatment of peptic ulcers, indigestion, and other gastric disorders, decoction used for fevers, poultice applied to relieve headaches.
<i>Inula grandiflora</i> Willd.*	Mannu	H	Reg Himal et Caucas	NE	2800-3300	2, 5, 8	Roots, leaves	Used in traditional Tibetan and Amchi medicine to treat fevers, respiratory ailments like bronchitis and asthma, and digestive issues.
<i>Jurinea himalaica</i> R.R. Stew.	Dhoop	H	Reg Himal		2800-3600	1,2,4,5,6,8, 9,10	Leaf, Aerial part, Root	Traditionally used in Ayurvedic and folk medicine.
<i>Lactuca brunoniana</i> (Wall. ex DC.) C.B. Cl.		H	Reg Himal		3000-3300	1, 3, 7, 9	Crushed leaves	Applied topically to cuts, bruises, and itching rashes. Paste for bruises and minor injuries.
<i>Lactuca lessertiana</i> (DC.) C.B. Cl.	Dudhla	H	Reg Himal		3600-4000	1,6,8	Leaves, shoots	Leaves and shoots used in traditional medicine for treating rheumatism and skin diseases.
<i>Lactuca macrorrhiza</i> Hk. f.	--	H	Reg Himal		3600-4000	6,10	Roots, leaves	Used in ethnoveterinary practices for treating dysentery, neck sores, and as a galactagogue.
<i>Lactuca violifolia</i> (Decne.) C.B.Cl.	-	H	As		3000-3600	1, 3, 7, 9	Aerial parts	Infusion used for mild asthma and cough relief.
<i>Leontopodium himalayana</i> DC.	Kopdughaa	H	Reg Himal		3600-4000	2,3,5,6,8,9, 10	Leaves	Used in traditional medicine for moxibustion, exhibits anti-inflammatory properties.
<i>Leontopodium jacotianum</i> Beauv.	--	H	Reg Himal		3600-4000	1,2,5,6,8,10	Aerial parts	Infusion used for diarrhoea, dysentery, and intestinal cramps.
<i>Ligularia amplexicaulis</i> DC.*	-	H	Reg Himal	NE	2800-3400	2,5,10	Whole plant	Employed in Buddhist medicine for treating vomiting from indigestion, pounded root applied as poultice to sprains and dislocated bones.
<i>Melanoseris cyanea</i> Edgew.	--	H	Reg Himal		3600-4000	5	Aerial parts	For headaches, joint pains, and menstrual cramps.
<i>Melanoseris macrorrhiza</i> (Royle) N.Kilian	-	H	Reg Himal China		2800-4000	1, 3, 7, 9	Leaves, flowers	Used to treat headaches, also utilized in Buddhist medicine.
<i>Melanoseris violifolia</i> (Decne.) N. Kilian		H	Reg Himal		3000-3800	1, 3, 7, 9	Whole plant, Crushed leaves	Used traditionally to treat fever, headaches, and stomach ailments. Employed in traditional medicine for itching rashes.
<i>Myriactis nepalensis</i> Less.	Safed Phagla	H	Reg Himal As Centr		2800-3500	2,3,7,8,10	Leaves	Powdered leaves used to purify the blood, essential oil exhibits antibacterial activity.
<i>Neobrachyactis pubescens</i> (DC.) Brouillet	--	H	Reg Himal		3600-4000	2	Aerial parts	Used in Buddhist medicine and local folk use.
<i>Parasenecio chenopodiifolius</i> (DC.) Grierson		H	Reg Himal		2800-3500	1, 3, 7, 9	Whole plant	Utilized in Buddhist folk medicine for treating inflammation and infectious diseases.
<i>Pentanema orientale</i> (Lam.) D.Gut. Larr., Santos-Vicente, Anderb., E.Rico and M.M. Mart. Ort.	--	H	Reg Himal		2800-3600	10	Whole plant	Utilized in traditional medicine for treating pulmonary and heart diseases, acts as a rejuvenator and immunomodulator.
<i>Rhynchospermum verticillatum</i> Rein w.	-	H	Java		3000-3300	1, 3, 7, 9	Crushed leaves	Infusion used to reduce fever and flu-like symptoms.
<i>Saussurea albescens</i> Hk. f and Th.**	--	H	Reg Himal	E	3600-4000	2,6,10	Root, Leaf	Bronchitis Leaves for diuretic activities. Employed in traditional medicine for respiratory and cardiovascular ailments.
<i>Saussurea atkinsonii</i> C.B. Cl.*	--	H	Reg Himal	NE	>4100	2	Whole plant	Utilized to treat anaemia, arthritis, and skin inflammation, exhibits antitumor, antioxidant, and antibacterial activities.
<i>Saussurea fastuosa</i> (Decne) Sch. - Bip	--	H	Reg Himal Sibir		2800-3600	1,2,5,6,7,9, 10	Whole plant	Used as a tonic to combat high-altitude fatigue and cold exposure.
<i>Saussurea gossypiphora</i> Franch.	Ghugghi, Kasturi kamal	H	Reg Himal		>4100	5,9	Whole plant	Traditionally used to treat asthma, pneumonia, stomach problems, flu, headache, improves blood circulation. Roots powder with water used for dysmenorrhea, rheumatoid arthritis, cough, anti-inflammatory, cold, stomach-ache, altitude sickness, cardiotonic, abortifacient, anticancer properties.
<i>Saussurea graminifolia</i> Wall. ex DC.	-	H	Reg Himal		3800-4500	2,9	Roots	Used for treating irregular menstruation, excessive bleeding during childbirth, and renal potency-related waist pain.
<i>Saussurea obvallata</i> (DC.) Edgew.	Bramkamal	H	Reg Himal		3500-4500	2,5,6,9	Leaves, rhizomes, flowers	Roots antiseptic, styptic and anti-inflammatory. Employed in Buddhist medicine for treating paralysis, cerebral ischemia, digestive disorders, urinary tract issues, colds, coughs, and wounds, possesses antibacterial and wound healing properties.
<i>Saussurea rufinervis</i> DC.	-	H	Reg Himal		2800-3400	1, 3, 7, 9	Roots and aerial parts	Employed in Buddhist medicine for cough, asthma, bronchitis, and lung weakness.
<i>Saussurea simpsoniana</i> (Fiedling and Gardner) Lipsch.**	Gugumana, Ghugghi	H	Reg Himal	E	>4100	10,2,9	Whole plant, roots	Traditionally used in the treatment of boils, gastric ulcers, cancer, inflammation, rheumatic pain, bronchitis, abdominal and nervous disorders, as well as in managing asthma and cold-related symptoms in traditional healing systems.
<i>Saussurea</i>	Jaigul	H	Reg Himal		3600-4000	1,2,4,5,6,9,	leaves	Crushed leaves applied to cuts, wounds, and

<i>taraxacifolia</i> (Lindl. ex Royle) Wall. ex DC.						10		infections.
<i>Senecio chrysanthemoides</i> DC.	Jaau	H	Reg Himal		2900-3200	2,3,5,6,7,9,10	Leaves, flowers	Used traditionally for abdominal pain, fever, rheumatism, and dysentery, exhibits antibacterial and antifungal activities.
<i>Senecio graciliflorus</i> DC.	Zerjum	H	Reg Himal		3600-4000	1,2,3,4,5,6,7,8,9,10	Whole plant	Employed in traditional medicine for treating poisoning, essential oils show antioxidant and cytotoxic activities.
<i>Senecio krascheninnikovii</i> Schischk.		H	Reg Himal		3600-4000	1, 3, 7, 9	Whole plant	Aid in neutralizing toxins from insect stings and bites, accelerating the healing process.
<i>Senecio kunthianus</i> Wall. ex DC.*	--	H	Reg Himal	NE	3600-4000	1,6,7,9,10	Aerial parts	Insect bites, ringworm diseases, ear-ache.
<i>Solidago virgaurea</i> L.	-	H	Reg Bor Temp	-	2800-3400	2,6,7,10	Aerial parts	Used in traditional medicine for treating urinary tract infections, kidney stones, and as an anti-inflammatory agent.
<i>Sonchus asper</i> (L.) Hill		H	Reg Himal Cosmop		2800-3400	2,6,7,10	Leaves	Traditionally used as a diuretic, purgative, and for treating liver and gallbladder disorders.
<i>Synotis kunthiana</i> (Wall. ex DC.) C. Jeffrey and Y.L. Chen		H	Reg Himal		3500-4000	1, 3, 7, 9	Flowers, seeds	Used for treating skin diseases and wounds.
<i>Synotis rufinervis</i> (DC.) C. Jeffrey and Y.L. Chen*	--	H	Reg Himal	NE	2800-3600	2,7,8,9,10	Whole plant	Exhibits antimicrobial and analgesic properties, traditionally used for the treatment of asthma, coughs, and pain relief.
<i>Tanacetum gracile</i> Hk. f. and Th.*	-	H	Reg Himal	NE	2800-3600	7	Stem, Root	Possesses anti-cancerous properties and demonstrates significant antiproliferative effects on human prostate cancer and other tumour cells.
<i>Taraxacum campyloides</i> G.E. Haglund	Kanphul/Haand	H	Reg Temp Bor et Austr	-	3000-3400	1, 3, 7, 9	Whole plant	A decoction used for healing cuts, treating headaches and fever, and as an antibiotic and general tonic. It supports the health of the liver, kidneys, and digestive organs, and is used in the treatment of jaundice, hepatitis, inflammation of the liver, and loss of appetite. Additionally, it is employed for managing food poisoning, as a blood purifier, and for alleviating migraine. The plant is also used in traditional medicine for treating liver disorders, kidney diseases, swelling, skin conditions, heartburn, and upset stomach.
<i>Tragopogon dubius</i> Scop.	--	H	Europe	--	>4100	2,6	Roots	Used for wound healing, indigestion, and as a diuretic, root edible and has medicinal properties.
BALSAMINACEAE								
<i>Impatiens amplexicaulis</i> Edgew.*	-	H	Reg Himal	NE	2800-3000	2,8,10	Leaves, stem sap, whole plant.	Traditionally used for skin ailments, burns, and boils leaf paste applied topically.
<i>Impatiens bicolor</i> Royle	Tilpara	H	Reg Himal		2800	1,3,4,5,6,7,8,9,10	Leaves, stem sap, whole plant.	Traditionally applied to warts and ringworm, fresh herb preparations are used for haemorrhoids.
<i>Impatiens glandulifera</i> Royle	--	H	Reg Himal		2800-3600	7,10	Whole plant,	Traditionally, used in remedies for alleviating impatience, irritability, and mental tension. The plant's juice is typically applied to treat warts and ringworm, while fresh herb preparations are employed in the management of haemorrhoids.
<i>Impatiens racemosa</i> DC.*	Gadama	H	Reg Himal	NE	2800-3600	1,2,6,7,8,10	Leaves, stem sap, whole plant	Traditionally, fresh herb preparations are employed in the management of haemorrhoids.
<i>Impatiens scabrata</i> DC.*	--	H	Reg Himal	NE	3200-3600	10	Aerial parts	In traditional folk medicine, the leaf juice is used for healing wounds and stopping bleeding, while the fruit juice is applied to treat gum problems. Additionally, a paste made from the stem is traditionally used to induce abortion.
<i>Impatiens sulcata</i> Wall.*	Halu/Gadama	H	Reg Himal	NE	2800-3600	1,2,3,4,5,6,7,8,9,10	Seeds, plant paste, mucilage	Applied externally to treat urticaria, itching, eczema, and pimples, mucilage used as an abortifacient.
BERBERIDACEAE								
<i>Berberis aristata</i> DC.*	Kshmal	Sh	Ind Or Nepal	NE	2800-3000	9,7,10	Root, stem bark	Leaf and fruit decoction used for snake bite, boils, diabetes and eye complaints. Used in Ayurveda for treating eye diseases, jaundice, fever, skin diseases, diarrhoea, and diabetes.
<i>Berberis jaeschkeana</i> C.K. Schneid.*	Kshamli	Sh	Reg Himal	NE	2800-3600	1,6,7,8,10	Root	Traditionally used for stomach pain, liver disorders, and fever.
<i>Berberis kunawirensis</i> Royle*	Kshmal	Sh	Ind Or	NE	2800-3200	1,6,7,8,10	Root, bark	A decoction of the leaves and fruits is traditionally used in folk medicine for treating snake bites, boils, diabetes, and various eye complaints. The plant is also applied for wound healing and eye problems and as tonic.
<i>Podophyllum hexandrum</i> Royle	Ban kakdi	H	Reg Himal		2800-3500	1,2,6,7,8,9,10	Rhizome, Fruit	Traditionally used for the treatment of cancer, skin diseases, and as a purgative and antiviral agent. The plant is a well-known source of podophyllotoxin, a key compound used in the formulation of anticancer drugs.
BETULACEAE								
<i>Betula utilis</i> D. Don	Bhoj patra	T	Reg Himal Japan		2800-3600	2,6,7,8,9,10	Bark, leaves, sap	Bark used in Ayurvedic medicine for treating epilepsy, convulsions, inflammation, wounds, and skin diseases.
<i>Carpinus viminea</i> Lindl. ex	Chham Khariag	T	Reg Himal		2800-3000	10	Bark	In traditional veterinary medicine, the bark is used for treating foot diseases in livestock,

Wall.								particularly to manage infections and promote healing.
<i>Corylus jacquimontii</i> Dence*	Thangi/Jungli Badam	T	Europe Or As Min Reg Himal	NE	2800-3000	1	Nuts (seeds), leaves	Highly nutritious dry fruits, essential oil for skin therapy and rich nutritional value, dye Known for edible nuts wild Himalayan hazelnuts. Traditionally used in tribal medicine as a tonic, for digestion, and in gynaecological disorders.
BORAGINACEAE								
<i>Arnebia benthamii</i> (Wall. ex G. Don) Johnst.*	Ratanjot	H	Reg Himal	NE	2800-3600	7	Whole plant, Roots, leaves	Used in traditional medicine for treating throat and tongue diseases, fevers, and cardiac symptoms. Exhibits wound-healing properties. Also used as a hair tonic and natural dye.
<i>Cynoglossum lanceolatum</i> Forssk.	-	H	Arab		2800-3200	1, 3, 7, 9	Whole plant	Employed in folk medicine for treating acute nephritis, periodontitis, and as a diuretic, anti-inflammatory, and analgesic agent.
<i>Cynoglossum microglochin</i> Benth.	-	H	Reg Himal		3000-3400	1, 3, 7, 9	Leaves and roots	Paste used for cuts, ulcers, and skin infections.
<i>Cynoglossum wallichii</i> G. Don	Balraj	H	Ind Or Burma		2800-3400	1, 2, 3, 5, 7	Roots, Whole plant	Traditionally used for treating wounds, burns, and infections.
<i>Eritrichium canum</i> (Benth.) Kitam.*	Changser, Tukse	H	Reg Himal	NE	3600-4000	2,5,6,7,8,9	Leaves	Leaves are used traditionally to hasten childbirth.
<i>Eritrichium nanum</i> Schrad. ex Gaudin	-	H	Reg Himal		3000-3500	1, 3, 7, 9	Leaves	Taken during seasonal fevers and cold exposure.
<i>Hackelia uncinata</i> (Royle ex Benth.) C.E.C.Fisch.	--	H	Reg Himal		2800-3600	1,2,3,6,7,8,9,10	Flowers	Utilized in Buddhist medicine for treating coughs, tumours in the womb, sores, wounds, and body swelling.
<i>Lindelia longiflora</i> Baill.*	--	H	Reg Himal	NE	2800-3600	6	Aerial parts	Used in traditional medicine to treat female diseases.
<i>Maharanga emodi</i> DC.	--	H	Reg Himal		2800-3600	1	Roots	Employed as a cooling agent, laxative, anthelmintic, and for treating eye diseases, blood disorders, bronchitis, abdominal pain, fevers, wounds, and piles. The root is also used for hair dyeing.
<i>Myosotis sylvatica</i> Hoffm.		H	Reg. bor. temp., Orients		2800-4000	1,2,3,6,7,8,9,10	Whole Plant	Used in folk medicine for cough, wounds, and memory aid.
<i>Onosma hispida</i> Wall. ex G. Don	-	H	Reg Himal		3000-3700	1, 3, 7, 9	Root, Leaf, Flower	Reduces fever and chills.
BRASSICACEAE								
<i>Barbarea vulgaris</i> W.T. Aiton	-	H	Europe		2800-3500	9	Leaves	A paste made from the leaves is traditionally applied to wounds and is known for its anti-cancerous properties. Herbal tea prepared from the leaves is used to treat coughs and is considered beneficial for kidney health. The leaves are also used as a poultice for wound healing, while the tea acts as an appetizer, antiscorbutic (effective against scurvy), and diuretic.
<i>Capsella bursa-pastoris</i> L. Medik.	Maslam	H	Reg temp	--	2800-3600	1,2,6	Aerial parts	Traditionally used as a blood purifier and diuretic, the plant is employed in the treatment of diarrhoea, dropsy, cuts, and fever. It is also known to reduce bleeding and is used for managing heart and circulatory disorders, premenstrual issues, and urinary tract infections.
<i>Cardamine hirsuta</i> L.	-	H	Reg Temp et Subtrop		2800-3000	2,6,8,9,10	Leaves and flowers	Cardiotonic, stomach problems. Rich in vitamin C.
<i>Cardamine impatiens</i> L.	-	H	Reg Himal North Amer		3000-3300	6,7,8,9,10		Used as an antirheumatic, diuretic, and stimulant, also employed in treating skin, respiratory, and digestive issues.
<i>Crucihimalaya himalaica</i> (Edgew.) Al-Shehbaz, O'Kane and R.A. Price	--	H	Reg Himal		2800-3600	10	Aerial parts	Used to treat ulcers, body pain, and inflammation.
<i>Draba lasiophylla</i> Royle*	-	H	Reg Himal Turkestan	NE	3300-4100	1, 3, 7, 9	Whole plant	Used in Rheumatism.
<i>Draba setosa</i> Royle	--	H	Spain Reg Bor et Arct	-	3000-4000	1	Whole plant	Used in folk medicine as supplement.
<i>Noccaea andersonii</i> (Hk.f. and Th.) Al-Shehbaz	--	H	Reg Himal		3600-4000	1	Leaves and shoots	Crushed leaves may help in minor cuts and insect bites.
<i>Sisymbrium officinale</i> (L.) Scop.	-	H	Europe Afr Bor	-	3400-3700	1, 3, 7, 9	Whole plant	Known as "the singer's plant", used for throat ailments, loss of voice, and respiratory issues, also, diuretic, expectorant, laxative, and stomachic.
BUXACEAE								
<i>Sarcococca saligna</i> Müll. - Arg.	Chirbeeri	Sh	Ind Or Malaya		2800-3000	1,2	Whole plant	The plant exhibits notable anti-inflammatory and anti-arthritis properties, traditionally used to alleviate arthritis, rheumatism, and joint swelling. Poultices prepared from its leaves and twigs are commonly applied to swollen joints to relieve pain. It is also employed in the treatment of various gastrointestinal disorders, including stomach pain, diarrhoea, ulcers, and hyperactive gastrointestinal conditions. Additionally, the plant is utilized for managing liver diseases and functions as a blood purifier.

CAMPANULACEAE								
<i>Campanula argyroticha</i> Wall. ex DC.	--	H	Reg Himal		2800-3600	2,6,8,9	Leaves and shoots	Applied topically for insect bites and rashes.
<i>Campanula aristata</i> Wall.	--	H	Reg Himal		3600-4000	2	Leaves and shoots	Used in mild infusions for sore throat and dry cough.
<i>Campanula latifolia</i> L.	-	H	Europe Oriens As Temp		2600-3500	1, 2, 5	Shoots, flowers, roots	Young shoots and flowers are edible, roots consumed raw. Traditionally used to induce vomiting.
<i>Campanula pallida</i> Wall.*	--	H	Ind Or Afghan	NE	2800-3600	1,2,6,7,9	Leaves and shoots	Traditionally used to induce vomiting.
<i>Codonopsis affinis</i> Hk. f. and Th.	--	H	Reg Himal		2800-3600	2,6	Leaves and shoots	Used in traditional medicine.
<i>Cyananthus lobatus</i> Wall. ex Benth.		H	Reg Himal		3000-4000	2,6,8,9	Flowers, root juice	Used in Buddhist medicine for treating serous disorders and constipation, root juice combined with <i>Valeriana jatamansi</i> for peptic ulcers.
CAPRIFOLIACEAE								
<i>Dipsacus inermis</i> Wall.*	Thatthuma ng	H	Reg Himal	NE	3000-3500	1, 3, 7, 9	Leaves, Roots	Traditionally used in Buddhist medicine for treating body aches, cough, swelling, sore throat, and inflammation-related disorders. Exhibits anti-inflammatory properties. Leaves dried and cooked. Roots powder used to treat inflammation of skin wounds, Lyme disease, eye irritation and Infusion of leaves is used to treat acne.
<i>Lonicera acuminata</i> Wall.	--	Sh	Reg Himal		2800-3600	2,7,8,9,10	Leaves, flowers	Employed in traditional Buddhist medicine to treat carbuncles, sores, erysipelas, wind-heat, colds, and fevers due to its heat-clearing and detoxifying properties.
<i>Lonicera angustifolia</i> Wall. ex DC.	Faney/Plaas	Sh	Reg Himal Am Bor		2800-3500	1, 3, 7, 9	Fruits	Produces sweet, pleasant-tasting red fruits. Used in indigenous medicine as an antipyretic, stomachic, and diuretic, and in treating dysentery.
<i>Lonicera asperifolia</i> Hk.f. and Th.	--	Sh	Reg Himal		2800-3600	8	Leaves, flower	Decoction or paste applied to skin infections, boils, and wounds.
<i>Lonicera dioica</i> L.	Brajai	Sh	Reg Himal		2800-3600	2,5,6,7,9,10	Flowers and leaves	Decoction or paste applied to skin infections, boils, and wounds.
<i>Lonicera obovata</i> Royle ex Hk.f. and Th.*	Brajai	Sh	Reg Himal	NE	3600-4000	2,4,6,7,9,10	Leaves, flower	Traditionally used to treat asthma, inflammation, and skin diseases. Also used to improve digestion.
<i>Lonicera purpurascens</i> Walp.*	Changari	Sh	Reg Himal	NE	2800-3000	1, 3, 7, 9	Flowers	Used to make herbal tea.
<i>Lonicera quinquelocularis</i> Hardw.	Bhujru	Sh	Reg Himal		2800-3600	2,7,10	Leaves	Used to make herbal tea.
<i>Lonicera rupicola</i> Hk.f. and Th.	--	Sh	Reg Himal		3600-4000	2,6,10	Flowers, leaves	Used in Buddhist medicine, flavonoids from this plant exhibit anti-inflammatory, antioxidant, and immune-enhancing properties.
<i>Morina longifolia</i> Wall. ex DC.	Bhushi	H	Reg Himal		2800-3600	1,2,5,6,7,8,9,10	Roots, Leaves	Used for wound healing, skin diseases, and as an anti-inflammatory agent.
<i>Valeriana hardwickii</i> Wall.*	Nihani	H	Reg Himal Malaya	NE	2800-3600	1,6,7,8,10	Roots, Rhizomes	Used for nervous disorders, insomnia, epilepsy, and headache. Aromatic roots used in incense, essential oils, and Amchi medicine.
<i>Valeriana jatamansi</i> Jones*	Nihani/ Mushkbala	H	Reg Himal	NE	2800-3600	7,10	Rhizome	Powerful sedative, used for sleep disorders, stress, and epilepsy. Known as "Mushka Bala" in Ayurveda, raw material for essential oil.
CARYOPHYLLACEAE								
<i>Arenaria serpyllifolia</i> L.	-	H	Reg Himal Europe As Temp Ind Or		3600-4000	1, 5, 8, 10	Leaves, aerial parts, whole plant	Traditionally used to treat kidney and bladder-related problems, dysentery, and cystitis.
<i>Cerastium cerastoides</i> (L.) Britton	-	H	Reg Himal		2800-3000	1, 2, 3, 5	Whole plant	Used in folk medicine for treating headaches, renal colic, body aches, and coughs.
<i>Gypsophila cerastioides</i> D. Don*	--	H	Reg Himal	NE	2800-3600	1,2,5,7,9,10	Root decoction	Used as a mild expectorant for cold and cough.
<i>Silene gonosperma</i> (Rupr.) Bocquet	--	H	Reg Himal Europe Or		3600-4000	10	Leave	Employed in traditional medicine to treat skin diseases and respiratory ailments.
<i>Silene indica</i> var. <i>edgeworthii</i> (Bocquet) Y.J.Nasir*	-	H	Reg himal	NE	2800-4000	5, 8, 9	Tender plant parts	Traditionally used for treating eye infections.
<i>Silene setisperma</i> Majumdar	--	H	Reg Himal		2800-3600	8	Leave	Leaves consumed as a vegetable and considered an appetizer.
<i>Silene suaveolens</i> Kar. and Kir.	Masi	H	Reg Himal Aus		3600-4000	2,6	Aerial parts	Traditional medicine for respiratory issues, particularly cough and bronchitis.
<i>Stellaria aquatica</i> Scop.	--	H	Europ As bor		3500-4500	5	Whole plant	Used to treat skin diseases, urinary tract infections, and fever. Also consumed as a food source.
<i>Stellaria decumbens</i> Edgew.	--	H	Reg Himal		3600-4000	2	Whole plant	Used to treat skin diseases.
<i>Stellaria himalayensis</i> (Rohrb.) Majumdar	Sukpa	H	Reg Himal Geront Trop		2800-3600	4,6,7	Aerial parts	Plant decoctions are used in local remedies for fever, cough, and throat infections.
<i>Stellaria</i>	--	H	Taiwan	NE	2800-3000	2,7	Whole plant	Used in indigenous medicine for treating

<i>monosperma</i> Buch.-Ham. ex D. Don*								wounds, skin irritations, and eye infections.
<i>Stellaria patens</i> D. Don	--	H	Reg Himal		2800-3600	7	Whole plant	Occasionally used in herbal teas for cough, fever, and general weakness.
CELASTRACEAE								
<i>Euonymus echinatus</i> Wall.		Sh	Reg. Himal		2800-3300	1, 3, 7, 9	Bark, roots	Bark and root extracts are used in traditional systems for treating jaundice, liver ailments, fever, and stomach disorders.
<i>Euonymus tingens</i> Wall.	--	T	Reg Himal		2800-3600	10	Bark	Traditionally used to treat eye diseases, chronic constipation, and dyspepsia. The bark is purgative, and its juice is applied for ophthalmic conditions.
<i>Parnassia nubicola</i> Wall. ex Royle	Kapphu	H	Reg Himal		3600-4000	1,2,6,7,9,10	Roots, aerial parts	Employed in traditional medicine for treating vomiting, snakebites, eye inflammation, wounds, body ache, headache, and food poisoning. Root paste is applied for various ailments.
CRASSULACEAE								
<i>Hylotelephium ewersii</i> (Ledeb.) H. Ohba	Sooi	H	Reg Himal Sibir Reg Himal		2800-3600	2,6,7,10	Leaves	Applied for dysentery, wound healing, and burns, also used to increase milk production in cattle.
<i>Rhodiola bupleuroides</i> (Wal l. ex Hk.f. and Th.) Fu	-	H	Reg Himal		3400-3500	1,2,6,7,8,9,10	Roots	Used traditionally to prevent diabetes.
<i>Rhodiola heterodonta</i> (Hk.f. and Th.) Boriss.*	--	H	Reg Himal	NE	3600-4000	1,2,4,5,6,7,8,9,10	Roots	Exhibits antihyperglycemic effects, used traditionally to prevent diabetes.
<i>Rhodiola quadrifida</i> Fisch. and C.A. Mey.	--	H	Reg Himal		3600-4000	9,10	Leaves	Used for treating wounds, inflammations, and burns due to their cooling and antiseptic nature.
<i>Rhodiola rosea</i> L.	--	H	Reg Himal		3600-4000	2,4,6	Roots	Used for fatigue, altitude sickness, gastrointestinal issues, tuberculosis and as an adaptogen.
<i>Rhodiola sinuata</i> (Royle ex Edgew.) Fu	--	H	Reg Himal		3600-4000	1,10	Leaves	Used topically to soothe inflammations and treat haemorrhoids.
<i>Rhodiola tibetica</i> (Hk.f. and Th.) Fu	--	H	Reg Himal		>4100	6,10	Leaves	Edible leaves as medicine.
<i>Rosularia rosulata</i> (Edgew.) H. Ohba*	--	H	Reg Himal	NE	3000-3200	3,9,10	Succulent leaves and stems.	Folk remedies for inflammatory skin conditions or boils.
<i>Sinocrassula indica</i> A. Berger	--	H	Reg Himal		2800-3600	10	Leaves, stems, Whole plant	Traditionally used in folk medicine, for treating pneumonia, respiratory tract infections, and tonsillitis. Used for dysentery, urinary tract infections, nausea, and vomiting.
DIOSCOREACEAE								
<i>Dioscorea deltoidea</i> Wall. ex Griseb.*	Shingli mingli	H	Ind Or	NE	2800-3600	1, 2, 3, 10	Rhizomes/ Tubers	Used in dysentery, piles Used to treat rheumatism, skin infections, piles, and as a contraceptive.
ELAEAGNACEAE								
<i>Elaeagnus umbellata</i> Thunb.	Geai	Sh	Japan		2800-2900	2,10	Fruits, Leaves	Used for cough, cold, fever, and digestive disorders.
ERICACEAE								
<i>Cassiope fastigiata</i> (Wall.) D. Don*	Salu, Talmel	Sh	Reg Himal	NE	2800-3600	1,2,5,6,9,10	Leaves	Traditionally used for treating minor burns by applying a paste of crushed fresh leaves.
<i>Gaultheria trichophylla</i> Royle	Thachi	Sh	Reg Himal		>4100	1,6,10	Fruits, leaves	Employed in folk medicine to treat inflammation, pain, asthma, and headaches, also used as an appetizer.
<i>Monotropa uniflora</i> L.	--	H	Reg Himal		2800-3600	10	Aerial parts	Used as a sedative and analgesic for convulsions, epilepsy, nerve pain, and anxiety, also applied for psychotic episodes and severe emotional pain.
<i>Rhododendron anthopogon</i> D. Don**	Talshi	Sh	As Bor Reg Himal	E	3300-3704	1,2,4,5,6,7,9,10	Leaves, flowers	Utilized in traditional medicine for respiratory issues, digestive disorders, liver problems, and as a general tonic, essential oil exhibits anti-inflammatory and antimicrobial properties.
<i>Rhododendron campanulatum</i> D. Don*	Shargal	Sh	Reg Himal	NE	2800-3600	1,2,5,6,7,8,9,10	Leaves, twigs, wood	Applied in treating rheumatism, sciatica, syphilis, colds, and chronic fevers, leaves used as snuff for headaches, twigs and wood used for phthisis.
<i>Rhododendron lepidotum</i> Wall. ex G. Don*	-	Sh	Reg Himal	NE	>4100	1,2,4,5,6,7,9,10	Leaves, flowers	Bronchitis, cough and cold. Aromatic Incense, Juice taken as a blood purifier, fresh flowers used as herbal tea for headaches, essential oil for aroma therapy.
EUPHORBIACEAE								
<i>Euphorbia prolifera</i> Buch.-Ham.	--	H	Reg Himal		2800-3600	2,7,10	Latex, Leaves	Used for skin infections, wounds, and as laxative. Latex used in folk veterinary medicine.
<i>Euphorbia stracheyi</i> Boiss.	Dudhibish	H	Reg Himal		2800-3600	1,6,10	Whole plant	Known for anti-inflammatory, wound healing, and joint pain treatments. Used as pest repellents.
FABACEAE								
<i>Astragalus himalayanus</i> Klotzsch *	--	H	Reg Himal	NE	3600-4000	2,3,5,7,8,10	Leaves	Traditionally used to treat fever, coughs, and digestive issues.
<i>Hedysarum kumaonense</i> Bent	--	H	Reg Himal		3600-4000	6,9	Leaves	Used to treat gastrointestinal nematodes and

h. ex Baker								support the immune system.
<i>Indigofera heterantha</i> Wall. ex Brandis	Kali kathi	Sh	Reg Himal		2800-3000	7,8,9	Leaves, bark, whole plant	Used to treat internal organ disorders, internal wounds, throat infections, diabetes, toothaches, jaw swellings, and hepatitis.
<i>Lathyrus emodi</i> (Fritsch) Ali*	--	H	Reg Himal	NE	2800-3600	7	Seeds and flowers	Traditionally used for gastrointestinal ailments and respiratory conditions.
<i>Lotus corniculatus</i> L.		H	Europe		2800	1, 3, 7, 9	Flowers, roots, aerial parts	Employed for its anti-inflammatory, antispasmodic, cardiotonic, sedative, and hypoglycaemic properties, used to treat skin inflammations.
<i>Medicago lupulina</i> L.	--	H	Geront bor temp	--	2800-3600	7	Leaves	Acts as a mild laxative, used to improve digestion, treat constipation, and has antibacterial properties.
<i>Oxytropis cachemiriana</i> Ca mb.	--	H	Reg Himal		2800-3600	2,9	Leaves	Used in traditional medicine for cold and also as fodder species.
<i>Parochetus communis</i> Buch.-Ham. ex D. Don	Milmalori	H	Ind Or Malaya Afr Trop		2800-3600	1,6,8,9,10	Leaves	Used to treat fever, headaches, and digestive issues, also employed in landscaping and erosion control.
<i>Sunhangia elegans</i> (DC.) H. Ohashi and K. Ohashi	Safed kathi	Sh	Reg Himal China		2800-3600	10	Roots, bark	Roots are carminative, diuretic, and tonic, used for bilious complaints, cholera, and peptic ulcers.
<i>Thermopsis barbata</i> Benth.	--	H	Reg Himal		3600-4000	2,8	Flowers, seeds, and seedlings	Employed to treat fever, stomach ailments, and skin diseases.
<i>Trifolium pratense</i> L.	Malori	H	Europe As Temp	-	3000-3400	1, 3, 7, 9	Flowers, aerial parts	Used to treat cancer, whooping cough, respiratory problems, and skin inflammations like psoriasis and eczema.
<i>Trifolium dubium</i> Sibth.	-	H	Europe		3000-3300	1, 3, 7, 9	Whole plant	Applied as a poultice to cuts to stop bleeding, used as a haemostatic agent.
<i>Trifolium repens</i> L.	Malori	H	Geront Bor Temp		2800-3400	1, 3, 7, 9	Aerial parts	Employed to treat fevers, skin conditions, and intestinal worms, exhibits anti-inflammatory and antimicrobial properties.
<i>Trigonella emodi</i> Benth.	--	H	Reg Himal		2800-3600	2,3,6,8,10	Flowers and leaves	Utilized for indigestion and back pain.
FAGACEAE								
<i>Quercus semecarpifolia</i> Sm.*	Kharsu	T	Reg Himal	NE	2800-3600	2,6,7,8,9,10	Bark, Leaves	Bark used for dysentery, fever, and skin infections.
GENTIANA CEAE								
<i>Comastoma pedunculatum</i> (Royle ex G. Don) Holub	--	H	Reg Himal Bhutan India Kashmir Nepal Sikkim		2800-3600	10	Whole plant	A well-known Buddhist traditional medicine, used to treat hepatitis, liver fibrosis, and gallbladder diseases.
<i>Gentiana algida</i> Pall.	--	H	Reg Himal		>4100	2,4,6,9	Whole plant, flowers	The plant is traditionally employed in the treatment of skin conditions, gastrointestinal disorders, fever, nervous system ailments, liver and bile-related issues, paediatric illnesses, influenza, rheumatism, and gout. In Amchi medicine, it is specifically used to manage throat infections, chest pain, vision loss, and disorders related to phlegm and blood. The flowers are particularly valued for treating bronchitis, cough, fever, pulmonary disorders, and various skin diseases.
<i>Gentiana cachemirica</i> Decne.**	--	H	Reg Himal	E	2800-4000	2,6,9	Whole plant	Bitter plant used to increase appetite and treat throat infections.
<i>Gentiana moorcroftiana</i> (Wall. ex G. Don) Airy Shaw*	--	H	Reg Himal	NE	3600-4000	8	Whole plant	Exhibits antibacterial and antioxidant activity, traditionally used for digestive and hepatic disorders.
<i>Gentiana pedicellata</i> (D. Don) Wall.	--	H	Reg Himal		>4100	1,2,8	Leaf, Root	Paste used for dog bites.
<i>Gentiana phyllocalyx</i> C. B. C. L.	--	H	Reg Himal		>4100	8	Flowers	Used as an ornamental plant and medicinally for treating various ailments.
<i>Gentiana tubiflora</i> (G. Don) Griseb.*	--	H	Reg Himal	NE	3600-4000	5,9	Whole plant	Arthritis, rheumatic pain, malaria, cough, cold and dysentery. Used in Buddhist medicine as an antidote, anti-inflammatory, and febrifuge, treats headaches, eye redness, throat inflammation, and gallbladder inflammation.
<i>Halenia elliptica</i> D. Don	--	H	Reg Himal		2800-3600	6,7,8,10	Whole plant	Employed in Buddhist medicine to treat hepatitis, liver inflammations, stomach complaints, and fevers, possesses antioxidant, and anti-inflammatory properties.
<i>Lomatogonium carinthiacum</i> (Wulfen) A. Braun	--	H	Reg Himal		2800-3600	2,10	Whole plant	Used to treat plague, influenza, typhoid, jaundice, and liver diseases.
<i>Swertia alaternifolia</i> Royle	--	H	Reg Himal		3600-4000	1,4,6	Whole plant	Have Ayurvedic medicinal applications and is used in combination with other herbs.
<i>Swertia cordata</i> (G. Don) Wall. ex C. B. C. L.	-	H	Reg Himal		3000-3400	1, 3, 7, 9	Whole plant	Used in Ayurvedic formulations to treat chronic fevers, anaemia, bronchial asthma, liver disorders, and as a tonic.
<i>Swertia paniculata</i> Wall.*	--	H	Reg Himal	NE	3600-4000	1	Whole plant	Employed as a tonic and as a substitute for <i>Swertia chirayita</i> in treating malaria and other fevers.

<i>Swertia petiolata</i> D. Don*	Haldimaura	H	Reg Himal	NE	3600-4000	2,6,9	Whole plant	Traditionally used to treat diabetes, stomach pains, liver disorders, typhoid, cancer, pneumonia, and malaria. Anti-inflammatory, febrifuge, inflammation in liver, stomach and blood pressure.
<i>Swertia purpurascens</i> (D. Don) C.B.Cl.	--	H	Reg Himal		3600-4000	3,6,8,10	Whole plant	Used in traditional medicine for digestive issues.
<i>Swertia speciosa</i> Wall.*	--	H	Reg Himal	NE	3600-4000	6	Leaves, roots	Used in traditional medicine for digestive issues, promotes gastric secretions and treats indigestion, poor food assimilation, and constipation, liver disorders, malaria and diabetes.
<i>Swertia angustifolia</i> Buch.-Ham. ex D. Don	Chirayata	H	Reg Himal		3100-3700	1, 3, 7, 9	Whole plant	Often used as an adulterant for <i>Swertia chirayita</i> , traditionally employed for similar medicinal purposes.
GERANIACEAE								
<i>Geranium nepalense</i> Sw.	Lalijar/Tirahni	H	Reg Himal Ind Or China		2800-3600	2,7,8,10	Whole plant	Used for wounds, inflammation, diarrhoea, and skin infections.
<i>Geranium pratense</i> L.	Porlo	H	Europe As Bor	--	>4100	6,10	Leaves, Roots	Roots used for wounds, tooth pain, ulcer, jaundice and abdominal diseases. Applied for rheumatism, fever, and digestive problems.
<i>Geranium rotundifolium</i> L.	-	H	Reg Himal		3000-3500	1,2,4,5,6,7, 8,9,10	Leaves, Stems	Effective for internal bleeding, mouth ulcers, and gastrointestinal issues.
<i>Geranium wallichianum</i> D.Don*	Role	H	Reg Himal	NE	2800-3800	1,2,4,5,6,7, 8,9,10	Whole plant, Roots	Used in bone healing, wounds, and muscle injuries. Used in herbal balms
GROSSULARIACEAE								
<i>Ribes alpestre</i> Wall. ex Decne.	Chalendri	Sh	China	--	2800-3100	2,6,10	Fruit	Traditionally used to alleviate abdominal pain when consumed fresh. Scientific studies have demonstrated its anti-arthritis properties, showing significant reduction in inflammation and joint swelling in experimental models.
<i>Ribes glaciale</i> Wall.	Chalender	Sh	Europe Afr Bor Reg Himal	--	2800-3646	2,6,7,8,9,10	Fruit	Employed in traditional medicine for its anti-inflammatory and analgesic properties. The ripe fruit is edible, though extremely sour, and is consumed raw or cooked.
<i>Ribes himalense</i> Royle ex Decne	Chalendri	Sh	Europe Afr Bor Reg Himal		3294-3353	2,7,9,10	Fruit	Used in traditional Buddhist medicine to treat vascular diseases and hepatitis.
<i>Ribes orientale</i> Desf.*	--	Sh	Oriens Reg Himal	NE	2800-3600	2,6,7,10	Roots, Fruit	Traditionally utilized to treat rheumatism, joint pain, and abdominal worms. The roots have shown anti-arthritis activity in scientific studies, and the berries are known for their purgative properties.
HYDRANGEACEAE								
<i>Philadelphus tomentosus</i> Wall. ex G.Don	--	Sh	Europe Austr	--	2800-3000	9	Bark, Leaves	Traditionally used for treating wounds, skin eruptions, and eye infections.
<i>Deutzia corymbosa</i> var. <i>staurothrix</i> (Airy Shaw) Zaik	Chunu	Sh	China Reg Himal	--	2800	10	Bark, Leaves	Used traditionally for skin diseases, cuts, and inflammatory swelling.
HYPERICACEAE								
<i>Hypericum elodeoides</i> Choisy	Basanti	H	Reg Himal Burma		2900-3400	7	Aerial parts	Employed in traditional Buddhist medicine to treat diarrhoea and snake bites
<i>Hypericum oblongifolium</i> Choisy*	Peol	Sh	Reg Himal	NE	2800-3600	7	Leaves, flowers, stems	Boils, wounds. Traditionally utilized for treating hepatitis, nasal haemorrhage, gastric ulcers, external wounds, bee and dog bites, also serves as a sedative, antispasmodic, and antiseptic.
<i>Hypericum uralum</i> Buch.-Ham. ex D.Don	--	H	Reg Himal China Japan		2800-3600	2,7,10	Whole plant	Applied in traditional medicine for its neuroprotective and antidepressant-like effects.
IRIDACEAE								
<i>Iris ensata</i> Thunb.	-	H	Reg Himal As Bor		2800-4000	1, 3, 7, 9	Rhizome, Flowers	Fever, upper respiratory tract infections. Known for anti-inflammatory and pain-relieving properties in folk medicine.
<i>Iris kemaonensis</i> Wall. ex D.Don*	-	H	Reg Himal	NE	3500-4200	1	Rhizome, Leaves	Diarrhoea, dysmenorrhoea and leucorrhoea. Used in traditional medicine for skin infections, fever, and antiseptic.
JUNCACEAE								
<i>Juncus bufonius</i> L.	-	H	Europe		2800	1, 2, 5, 10	Whole plant	Traditionally used to treat coughs, asthma, digestive disorders, and skin conditions.
<i>Juncus himalensis</i> Klotzsch*	Muth	H	Reg Himal	NE	3000-4000	1, 5, 8, 10	Whole plant	Whole plant or stem extracts occasionally used for urinary disorders, and as a diuretic.
<i>Juncus prismatocarpus</i> R.Br.	--	H	As Or Austr		2800-3500	9,10	Leaves	Employed as a counter-irritant, digestive aid, and for treating helminthiasis, pleurisy, and pneumonia.
<i>Juncus thomsonii</i> Buchenau*	Litru	H	Reg Himal	NE	3000-4500	4, 5, 8,10	Whole plant	Utilized in traditional medicine for pregnancy-related treatments.
LAMIACEAE								
<i>Ajuga integrifolia</i> Buch.-Ham. ex D. Don	Neelkanthi	H			2800	1, 3, 7, 9	Whole plant	Traditionally used to treat infectious illnesses, exhibits antioxidant and antibacterial activities. Malarial fever, tonic, astringent and febrifuge.
<i>Clinopodium nepeta</i> (L.) Kuntze	Jungli padina	H	Oriens Ind Or	--	2800	2,6,7,8,9	Aerial parts	Employed for respiratory illnesses, colds with fever, and to loosen chest congestion, promotes sweating.
<i>Clinopodium</i>	Jungli	H	Oriens Ind	--	2800	2,6,7,8,9	Aerial parts	Astringent, Carminative, Heart tonic. Used for

<i>umbrosum</i> (M. Bieb.) K.Koch	padina		Or					cuts, wounds, digestive issues, and respiratory illnesses, serves as an astringent and blood purifier.
<i>Craniotome furcata</i> (Link) Kuntze*	--	H	Reg Himal	NE	2800-3600	10	Leaf juice	Applied in folk medicine for wound treatment, exhibits antimicrobial activity.
<i>Elsholtzia flava</i> (Benth.) Benth.**	Pothi	Sh	Reg Himal	E	2800	8	Whole plant	Skin disease, diarrhoea and stomach-ache. Traditionally used to treat fever, headaches, and stomach ailments, possesses antibacterial, antiviral, and anti-inflammatory activities.
<i>Equilabium molle</i> (Aiton) Mwany. and A.J.Paton	-	H	Ind Or		3000-3300	1, 3, 7, 9	Leaves	Used for treating digestive disorders and as an antimicrobial agent.
<i>Isodon coetsa</i> (Bu ch. - Ham. ex D. Don) Kudô	Chichri	H	Reg Himal		3000-3400	1, 3, 7, 9	Whole plant	Utilized for its antibacterial and anti-inflammatory properties, traditionally used to treat various health issues.
<i>Leonurus cardiaca</i> L.	Kungshi	H	Reg Himal		2800-3600	2,6,8,10	Aerial parts	Treat to stomach disorders and diaphoretic. Employed for nervous debility, cardiac disorders of nervous origin, and to promote blood flow to female reproductive organs.
<i>Leucas lanata</i> Benth.*		H	Reg Himal Ind Or China	NE	2800-4500	1, 3, 7, 9	Crushed leaves	Applied to wounds, sores, and chronic skin diseases, used to treat mild fevers, colds, rheumatism, and snake bites.
<i>Mentha longifolia</i> (L.) L.	Jangli Pudina	H	Reg Bor Temp		2800-3200	8	Leaves and flowers	Used for high blood pressure, and abdominal pain
<i>Nepeta connata</i> Royle ex Benth.*	--	H	Reg Himal	NE	2800-3600	2	Leaves	Traditionally used for various ailments. Used for tooth trouble, kidney, liver problems, antispasmodic, diuretic, febrifuge, diaphoretic, antimicrobial and dysentery.
<i>Nepeta elliptica</i> Royle ex Benth.*	--	H	Reg Himal	NE	3600-4000	1,4,5,6,8	Flowers	Employed for treating headaches, colds, and fever.
<i>Nepeta erecta</i> (Royle ex Benth.) Benth.*	--	H	Reg Himal	NE	2800-3600	10	Seeds	Essential oil has therapeutic values. Used in traditional medicine and aroma therapy
<i>Nepeta eriostachya</i> Benth.	-	H	Reg Himal		3000-3200	1, 3, 7, 9	Leaves	Used in traditional medicine in combination with other herbs.
<i>Nepeta laevigata</i> (D. Don) Hand.-Mazz.	--	H	Reg Himal		3600-4000	1,2,4,6,9	Whole plant, Flowers	Antispasmodic, diuretic, febrifuge and diaphoretic. Used to treat headaches, colds, and fever.
<i>Nepeta podostachys</i> Benth.	--	H	Afghan		2800-3700	2,4,6,10	Whole plant	The red dye obtained from the roots is used for colouring food stuffs, oils and parts of leaves and terminals shoots are applied to boils, ulcers, wounds, cuts and weeping.
<i>Nepeta govaniana</i> (Wall. ex Benth.) Benth.	-	H	Reg Himal		3000-3300	1, 3, 7, 9	Leaves and flowering tops	Used in decoctions to treat fever, cough, cold, and respiratory ailments.
<i>Origanum vulgare</i> L.	Ban tulsi	H	Europe As et Afr Bor		2800-3500	1,4,5,6,8	Leaves and flowers	Employed for respiratory disorders, gastrointestinal issues, and as an antimicrobial agent.
<i>Phlomis bracteosa</i> (Royle ex Benth.) Kamelin and Makhm.*	Jamtikle	H	Reg Himal	NE	2800-3600	1,2,3,5,6,7, 8,9,10	Leaves	Traditionally used for treating wounds and as an anti-inflammatory agent.
<i>Phlomis spectabilis</i> (Falc. ex Benth.) Kamelin and Makhm.	--	H	Reg Himal		2800-3600	6,7,9,10	Whole plant	Used against digestive disorders.
<i>Prunella vulgaris</i> L.	Pethughaa	H	Reg Temp		2800-3000	2,10	Whole plant	Employed for sore throats, fever, and as an anti-inflammatory agent.
<i>Salvia hians</i> Royle ex Benth.	--	H	Reg Himal		2800-3600	7	Leaves and flowers	Traditionally used for treating coughs and colds.
<i>Salvia moorcroftiana</i> Wall. ex Benth.	-	H	Reg Himal		3000-3300	1, 3, 7, 9	Leaves and flowers	Used for treating respiratory ailments and as an anti-inflammatory agent.
<i>Scutellaria melissifolia</i> Benth.	-	H			2800-3000	1, 3, 7, 9	Aerial parts	Used to treat gastrointestinal and respiratory tract, skin, gynaecological and nervous system.
<i>Teucrium royleanum</i> Wall. ex Benth.*	-	H	Reg Himal	NE	3000-3400	1, 3, 7, 9	Leaves	Tonics, antipyretics, and antiseptics.
<i>Thymus linearis</i> Benth.	Ban jawain	H	Afghan		2800-3600	2	Leaves and flowers	The leaves are traditionally used for their antibacterial and antifungal properties, and to relieve pain during childbirth. They are employed in the treatment of epilepsy, whooping cough, alopecia, spasmodic and abdominal pain, toothache, liver disorders, and for reducing excessive bile secretion. Leaf juice is used to eliminate hookworms. The plant is also widely used for respiratory and digestive ailments, and functions as a potent antimicrobial agent.
LILIACEAE								
<i>Cardiocrinum giganteum</i> (Wall.) Makino	Bhuj Pokhri	H	Reg Himal Japan		2800-3600	10	Bulb	Employed in traditional medicine for treating gastric and duodenal ulcers, also used in herbal formulations.
<i>Clintonia udensis</i> Trautv. and C.A.Mey.	-	H	Sibir Japan		3200-4000	4, 10	Roots and rhizomes	Wound healing and boils.
<i>Fritillaria</i>	Jangli	H	Reg Himal		3600-4000	1,2,6	Bulb	Antiasthmatic, antirheumatic, febrifuge,

<i>cirrhusa</i> D. Don	lahsun							anticancer and asthma. Used in Traditional Buddhist medicine to treat respiratory conditions like asthma, bronchitis, and chronic cough.
<i>Gagea lutea</i> (L.) Ker Gawl.*	-	H	Europ As Bor	NE	2800-3600	1, 8, 10	Whole plant	Used for treating fever and stomach-ache.
<i>Gagea serotina</i> (L.) Ker Gawl.	--	H	N Amer		3300-4000	2,8	Whole plant	Historically used for musculoskeletal and trauma-related ailments.
<i>Lilium polyphyllum</i> D. Don *	Kakoli	H	Reg Himal	NE	2800-3200	10	Bulb	Expectorant, Diuretic, Aphrodisiac and Antipyretic. Utilized in Ayurveda for treating general debility, rheumatism, bleeding disorders, fever, bronchitis, and as a revitalizing tonic.
MALVACEAE								
<i>Malva pusilla</i> Sm.		H	Europe		2800	10	Leaves, Flowers, Roots	Used for respiratory issues, inflammation, urinary tract infections, and cough Also used as fodder, and occasionally in herbal teas
MAZACEAE								
<i>Mazus surculosus</i> D. Don		H	Reg Himal		3000-3300	1, 3, 7, 9	Leaves	Treats toothache, mouth ulcers, and fever
MELANTHACEAE								
<i>Trillium govanianum</i> Wall. ex D. Don*	Naagchattri	H	Reg Himal	NE	2800-3600	1,2,6,7,8,9, 10	Rhizome	Used for anti-inflammatory, anti-cancer, aphrodisiac, postpartum care, and joint pain. Known as "Nagchhatra" in Ayurveda, in high demand for herbal drug industries.
NARTHECIAEAE								
<i>Aletris pauciflora</i> (Klotzsch) Hand.-Mazz.	Pyajughaa	H	Reg Himal		3000-4300	3, 5, 8, 9	Whole plant	Traditionally used for digestive issues, joint and muscle pain, and women's reproductive health.
OLEACEAE								
<i>Chrysojasminum humile</i> (L.) Banfi	Juhi	Sh	As Trop		2800-2900	1, 2, 4, 5, 12	Flowers, root, milky sap, leaves	Used to treat skin and blood disorders, as well as heart-related ailments. The flowers are regarded as a tonic for strengthening the heart and improving bowel function. A decoction of the leaves is commonly used to manage various skin conditions.
<i>Jasminum officinale</i> L.	Banmalti	Sh	Reg Himal Ind Bor Occ China		2800-3600	10	Leaves, flowers, essential oil	Used to treat ringworm, while the leaves are chewed to relieve mouth ulcers and toothache. Jasmine oil, extracted from the flowers, is widely used for stress relief and is also valued for its aphrodisiac properties.
<i>Syringa emodi</i> Wall. ex Royle	--	Sh	Reg Himal		2800-3600	2,7,8,9,10	Flowers, seeds	Flowers and seeds used to treat fever.
ONAGRACEAE								
<i>Circaea alpina</i> L.	--	H	Europe As Bor Am Bor		2800-3600	1,2,6,7,8,10	Whole plant	Traditionally used for treating tumours and healing fresh cuts or wounds.
<i>Epilobium brevifolium</i> D. Don	--	H	Reg Himal		3600-4000	2,6	Aerial parts	Used for treating respiratory issues.
<i>Epilobium cylindricum</i> D. Don	--	H	Europe As Occ		2800-3600	5,10	Aerial parts	Used for treating respiratory issues.
<i>Epilobium hirsutum</i> L.	--	H	Europe As Bor		2800-3000	1,2,3,5,7,8, 9,10	Aerial parts	Used for treating respiratory issues, skin irritations, inflammation, adenoma, rectal bleeding, menstrual disorders, constipation, and prostate problems.
<i>Epilobium latifolium</i> L.*	-	H	Reg Bor et Arct	NE	3000-3400	1,2,5,6,7,8, 9,10	Whole plant	Employed in Buddhist medicine for its analgesic, anti-inflammatory, antirheumatic, and febrifuge properties, used to treat fevers, inflammations, and itching pimples.
<i>Epilobium laxum</i> Royle	--	H	Europe		2800-4000	2,3,5,6,7,9, 10	Aerial parts	Used for treating respiratory issues.
<i>Epilobium roseum</i> (Schreb.) Schreb.	-	H	Europe		3000-3400	2,3,5,6,7,9, 11	Methanolic extract	Exhibits antimicrobial and antioxidant properties, used in treating bacterial infections.
<i>Epilobium royleanum</i> Haussk.	-	H	Reg Himal		2800-3400	4, 7, 9, 11	Leaf, Fruit	Used in treating bacterial infections.
ORCHIDACEAE								
<i>Calanthe plantaginea</i> Lindl.	--	H	Reg Himal		2800-3600	6,10	Dried rhizome powder mixed with milk.	Used as a tonic and aphrodisiac.
<i>Calanthe tricarinata</i> Lindl.	--	H	Reg Himal		2800-3600	5,6,8,10	Rhizome.	Treats arthritis, rheumatism, injuries, and colds, sores, and eczema.
<i>Cephalanthera longifolia</i> (L.) Fritsch.	-	H	Europe Afr Bor As Temp		3000-3300	1, 3, 7, 9	Rhizome.	The rhizome is traditionally mixed with maize flour and administered to livestock to promote milk production. It is also used as an aphrodisiac tonic, a lactation enhancer, an appetizer, and a natural wound healer in ethnoveterinary and traditional medicine practices.
<i>Dactylorhiza hatagirea</i> (D. Don) Soó*	Panja	H	Reg Himal Europe Afr Bor Oriens	NE	2800-3600	1,2,6,7,10	Roots	Treats respiratory issues, digestive problems, inflammation, and has potential anti-cancer properties.
<i>Denia cylindrostachya</i> L. indl.	--	H	Reg Himal		2800-3600	10	Leaves, roots, and flowers.	Treats inflammation, fever, respiratory and digestive problems, has antiseptic and antioxidant properties.
<i>Epipactis gigantea</i> Douglas	-	H	Am Bor As Temp		2800-4200	1, 2, 3	Whole plant.	Used for managing fever, treating wounds, and as an aphrodisiac. It also functions as a tonic for

								general ailments and is commonly employed in purification and traditional healing ceremonies.
<i>Epipactis royleana</i> Lindl.	--	H	Reg Himal		2800-3600	2,8,10	Whole plant.	Treats fever, colds, rheumatism, and external parasites.
<i>Epipactis helleborine</i> (L.) Crantz	-	H	Reg Himal		3000-3400	7,8,9,10	Rhizomes	Used for treating nerve pain, rheumatism, and gastrointestinal issues
<i>Goodyera biflora</i> (Lindl.) Hook.f.	-	H	Reg Himal		2800-3000	1,4	Whole plant.	Used as a blood purifier and for treating fever. It is also employed in the management of rheumatism, respiratory disorders, and snake bites, highlighting its broad therapeutic relevance in traditional medicine systems.
<i>Goodyera fusca</i> (Lindl.) Hk.f.	-	H	Reg Himal		3200-4300	5, 9	Whole plant.	For curing syphilis, irregular menstruation, and as blood purifier.
<i>Goodyera repens</i> (L.) R.Br.	--	H	Reg Bor Temp		2800-3700	2,10	Leaves and roots	Used in the treatment of syphilis and as a blood purifier. It is also applied for managing scrofulous sores, skin rashes, bruises, and insect bites, and is valued as a blood tonic in traditional healing systems.
<i>Gymnadenia orchidis</i> Lindl.*	--	H	Reg Himal	NE	2800-3600	6,9,10	Roots	The plant is traditionally recognized for its therapeutic value, particularly in the treatment of rheumatism and related inflammatory conditions.
<i>Herminium edgeworthii</i> (Hk.f. ex Collett) X.H.Jin, Schuit., Raskoti and Lu Q.Huang**	Riddhi	H	Reg Himal	E	2800-3600	6,10	Tuber	Gastric and urinary disorders.
<i>Herminium lanceum</i> (Thunb. ex Sw.) Vuijk	-	H	Am Bor As Temp		2800-3200	1, 3, 7, 9	Whole plant.	Used as a blood purifier, appetizer, and aphrodisiac tonic, and is also employed in the treatment of cardiac ailments. It is commonly used to manage fever, cough, cold, and headaches. Additionally, it exhibits notable anti-inflammatory and antimicrobial properties, supporting its broad therapeutic applications.
<i>Herminium latilabre</i> (Lindl.) X.H.Jin, Schuit., Raskoti and Lu Q.Huang	-	H	Ind or		2800-3500	1, 3, 7, 9	Tuber	Used in the treatment of gastric and urinary disorders, reflecting its role in managing digestive and excretory system ailments.
<i>Herminium monorchis</i> (L.) R.Br.	-	H	Europe As bor		3000-4300	1, 3, 7, 9	Aerial parts	Used for the treatment of rheumatism, particularly to relieve joint pain and inflammation.
<i>Malaxis muscifera</i> (Lindl.) Kuntz.	Jeevak	H	Reg Himal		2800-3600	7,9,10	Whole plant.	Used for its antioxidant and rejuvenating properties. It is used as an aphrodisiac and in the treatment of general body debility, burning sensations, tuberculosis, and bleeding disorders.
<i>Neottia listeroides</i> Lindl.		H	Reg Himal		2800-3600	6,10	Tuber	As aphrodisiac for curing stytic dysentery, febrifuge, tonic, burns, debility, and used in sterility.
<i>Spiranthes sinensis</i> (Pers.) Ames.	Bakersinghi	H	Asia		2800-3000	1, 3, 7, 9	Tuber	Used for its medicinal properties, being effective against snake bites, tuberculosis, sore throat, diabetes, and cough. Its powdered form is used as an energizer and is also beneficial in relieving headaches.
OROBANCHACEAE								
<i>Euphrasia himalayica</i> Wettst.	Chaula	H	Reg Himal		3600-4000	6,8,10	Whole plant	Used to treat various eye disorders and is commonly referred to as "Eyebright" in local healing systems. It holds a significant place in alpine Amchi medicine, where it is employed for improving and maintaining ocular health.
<i>Mazus surculosus</i> D. Don		H	Reg Himal		3000-3300	1, 3, 7, 9	Leaves	Treats toothache, mouth ulcers, and fever.
<i>Pedicularis bicornuta</i> Klotzsch	-	H	Reg Himal		3000-3500	1, 3, 7, 9	Leaves, Whole plant	Applied to joint pain, swelling, and muscle injuries. In Buddhist medicine, flowers are used to treat vaginal and seminal discharges.
<i>Pedicularis brevifolia</i> D. Don*	--	H	Reg Himal	NE	3600-4000	1,2,5,6,8,10	Flowers	Used to treat gynaecological disorders, particularly menstrual irregularities, and is also known to enhance blood circulation.
<i>Pedicularis cheilanthesifolia</i> Schrenk	-	H	Reg Himal		3000-3400	1, 3, 7, 9	Leaves, Flowers	Used in fever, respiratory issues, and fatigue.
<i>Pedicularis elephas</i> Boiss.	--	H	Reg Himal		3600-4000	8	Flowers	The plant is traditionally employed in the treatment of gynaecological conditions, especially menstrual irregularities, and is also used to improve blood circulation.
<i>Pedicularis oederi</i> Vahl	--	H	Reg Bor Frigid	--	3200-4200	1,6,7,9,10	Whole plant	Infusion acts as a sedative and mild skeletal muscle relaxant, also used as an antiseptic to stop bleeding from minor injuries.
<i>Pedicularis pectinata</i> Wall. ex Benth.	-	H	Reg Himal Persia		3000-3300	1, 3, 7, 9	Leaves, Aerial parts, Flowers	Used for insect bites, skin diseases, and fever. Gynaecological diseases like menstrual irregularity, and to improve blood circulation.
<i>Pedicularis porrecta</i> Wall. ex Benth.	--	H	Reg Himal		3600-4000	10	Flowers	Gynaecological diseases like menstrual irregularity, and to improve blood circulation.
<i>Pedicularis punctata</i> Decne.	--	H	Reg Himal		3600-4000	2,4,5,8,9,10	Whole plant	Used to treat fever, colds, headaches, gynaecological diseases like menstrual irregularity, and to improve blood circulation. Applied for body aches, chronic cough, and sores.
<i>Pedicularis pyramidata</i> Royle ex Benth.*	--	H	Reg Himal	NE	2800-3600	2,9,10	Whole plant	In Buddhist medicine, used as an analgesic and diuretic, treats retained fluids, difficulty in urination, breathlessness, inflammation of

								bone/marrow, and pain from inflammation.
<i>Pedicularis roylei</i> Maxim.*	--	H	Reg Himal China	NE	2800-3600	2,6,9,10	Whole plant	Infusion acts as a sedative and mild skeletal muscle relaxant, also used as an antiseptic to stop bleeding from minor injuries.
<i>Pedicularis hoffm eisteri</i> Klotzsch	-	H	Reg Himal		3000-3300	1, 3, 7, 9	Leaves	Treats headache, burns, and bruises.
<i>Pedicularis roylei</i> Maxim.		H	Reg Himal China		3000-3300	1, 3, 7, 9	Leaves, Flowers	A part of Buddhist medicinal healing system which is known for antirheumatic, cooling, and tonic properties.
<i>Xylanche himalaica</i> (Hk.f. and Th.) Beck.	--	H	Reg Himal		3600-4000	10	Whole plant, tubers	Traditionally used in Buddhist medicine to enhance renal function, treat erectile dysfunction, and support liver health. Also applied externally as a poultice for cuts and wounds in cattle.
OXALIDACEAE								
<i>Oxalis acetosella</i> L.	Malori	H	Reg Bor Temp		2800-3000	1, 2, 3, 4, 5, 7, 9, 12	Leaves, Whole plant	Used for treating boils, wounds, and fever. It is also employed in the management of urinary tract infections, scurvy, and digestive disorders. The edible leaves, known for their sour taste, are used as a salad garnish and serve as a natural body coolant.
PAPAVERACEAE								
<i>Corydalis cashmeriana</i> Royle **	Bhutkeshi	H	Reg Himal	E	3600-4000	1,2,5,6,9	Leaves	Leaf and stem extracts are taken orally to cure acne and as blood purifier.
<i>Corydalis cornuta</i> Royle	--	H	Reg Himal		2800-3600	6,7,10	Leaves, stems	Used to treat hypotension, leaf and stem extracts are taken orally.
<i>Corydalis govaniana</i> Wall.*	Bhutkeshi	H	Reg Himal	NE	3300-3500	1,2,6,9	Roots, whole plant	Employed in traditional medicine as an antidote, anti-inflammatory, febrifuge, and vermifuge, used to treat syphilis, cutaneous affections, poisoning, swelling of limbs, and stomach pain.
<i>Corydalis meifolia</i> Wall.*	Bhutkeshi	H	Reg Himal	NE	3600-4000	2,3,6,8,9,10	Whole plant	Used in traditional Buddhist medicine to treat headaches, stomach pain, and liver disorders, alkaloids extracted from this species exhibit anticholinergic and antihistaminic properties.
<i>Corydalis ratifolia</i> (Sm.) DC.	--	H	Amer		2800-3000	1,2,5,6,9	Whole plant	Used in traditional Buddhist medicine to treat headaches, stomach pain, and liver disorders.
<i>Dactylicapnos roylei</i> (Hk.f. and Th.) Hutch.	--	H	Reg Himal		3600-4000	2,6	Whole plant	Traditionally used for its broad therapeutic potential in pain management, inflammation control, bleeding disorders, and blood pressure regulation.
<i>Meconopsis aculeata</i> Royle	Satruja	H	Reg Himal		3600-4000	1,2,4,5,6,7, 9,10	Leaves and flowers	Employed in Buddhist, traditional medicine to treat rheumatic pain, fever, cough, asthma, and bone-related ailments. Exhibits antioxidant and antibacterial activities.
PHYLLANTHACEAE								
<i>Glochidion lanceolarium</i> (Roxb.) Voigt.		T	Ind or		2800-3000	3	Bark, Leaves	Used for diarrhoea, dysentery, skin ailments, and as a tonic.
PHYTOLACACEAE								
<i>Phytolacca acinosa</i> Roxb.	Jharka	H	Reg Himal China		2800-3600	10	Roots, Leaves, Fruits	Used for constipation, gout, arthritis, and as a detoxifying agent.
PLANTAGINACEAE								
<i>Hemiphragma heterophyllum</i> Wall.	--	H	Reg Himal		3600-4000	6	Whole plant	Applied to cuts and wounds, treats fever, colds, and stomach disorders.
<i>Lagotis cashmeriana</i> (Royle ex Benth.) Rupr.**	--	H	Reg Himal	E	>4100	4,5	Whole plant	Used in Amchi medicine for bronchitis, lung infection, and nerve tonic.
<i>Lagotis kunawiurensis</i> (Royle ex Benth.) Rupr.	Milmalori	H	Reg Himal		3600-4000	1	Leaves, Roots	Used for fever, inflammation, and eye pain in traditional settings.
<i>Picrorhiza kurroa</i> Royle ex Benth.	Karru	H	Reg Himal		3600-4000	1,2,3,4,5,7, 8,9,10	Rhizome	Treats liver disorders, jaundice, chronic fever, and immunity disorders. A critically important Ayurvedic herb known as "Kutki".
<i>Plantago asiatica</i> L.	Isabgol	H	Europe As et Am Bor		3000-3400	1, 3, 7, 9	Leaves and seeds	Treats urinary tract infections, diarrhoea, and dysentery, used as a diuretic and anti-inflammatory agent.
<i>Plantago depressa</i> Willd	Isabgol	H	Sibir		3000-4200	1,5,7,9	Seeds	Used in the treatment of dysentery, chronic fever, rheumatism, cough, and cold. It functions as a bulk laxative and is known to soothe irritated mucous membranes.
<i>Plantago lanceolata</i> L.	Isabgol	H	Europe As Bor		3100-3400	1, 3, 7, 9	Leaves and seeds	Treats respiratory issues (coughs, bronchitis), skin inflammations, wounds, possesses antimicrobial and anti-inflammatory properties.
<i>Plantago himalaica</i> Pilg.	Isabgol	H	Reg Himal		3000-3400	1, 3, 7, 9	Leaves and seeds	Used as a laxative and stool softener, helps reduce cholesterol, treats constipation, diarrhoea, irritable bowel syndrome (IBS), and supports heart health.
<i>Plantago ovata</i> Forsk.	-	H	Reg Mediterr Oriens		3000-3300	1, 3, 7, 9	Seed husks (psyllium)	Used as a laxative and stool softener, helps reduce cholesterol, treats constipation, diarrhoea, irritable bowel syndrome (IBS), and supports heart health.
<i>Wulfeniopsis amherstiana</i> (Benth.) D.Y. Hong*	--	H	Reg Himal	NE	2800-3600	7,8,9,10	Roots, Leaves	Used for rheumatism and bone weakness.
POACEAE								
<i>Agrostis pilosula</i>	Ludri	H	Reg Himal		3600-4000	1,2,4,5,6,7,	Whole plant	Treating acute as well as chronic cases of

Trin.						8,9,10		Epilepsy.
<i>Arundinella pumila</i> (Hochst. ex A. Rich.) Steud.*	--	H	Ind Or Burma Abyss Nigeria	NE	2800-3600	7,10	Leaves, Whole plant	Minor traditional use for joint swelling when used as warm compress.
<i>Dactylis glomerata</i> L.	Chuna	H	Europe As Bor		2900-3600	1,2,3,4,5,6, 7,8,9,10	Whole plant	Tumours, kidney and bladder ailments.
<i>Drepanostachyum falcatum</i> (Nees) Keng f.	Nagaal, Dhaari	H	Reg Himal		2800-3600	2,10	Culms, Leaves	Used for joint swelling in warm compress.
<i>Eragrostis pilosa</i> (L.) P. Beauv.	-	H	Europe Reg Calid		3100-3300	1, 3, 7, 9	Whole plant	Occasionally used for skin rashes and fever compress in folk traditions, decoctions are used to relieve intestinal disorders.
<i>Festuca valesiaca</i> Schleich. ex Gaudin	--	H	Reg Himal Ind Or		2800-3600	6,10	Whole plant	Used for joint swelling in warm compress.
<i>Narenga fallax</i> (Balansa) Bor	-	H	Ind or		3000-3300	1, 3, 7, 9	Stem, Roots	Used in traditional medicine as coolant and for urinary problems.
<i>Phalaris minor</i> Retz.	--	G	Graecia Oriens Afr austr	--	2800-3000	6	Seeds, Leaves	Fever, urinary issues, and intestinal cleansing (folk use).
<i>Poa annua</i> L.	Munjo	G	Cosmop Trop	--	2800-3300	1,6	Whole plant	Occasionally used for minor cuts and burns in folk healing.
<i>Poa pratensis</i> L.	Chunna	G	Reg Bor Temp	--	3000-3500	1,2,3,5,6,7, 8,9,10	Leaves	Used in some folk remedies for skin irritation and insect bites. Commonly used for turf, pastures, and erosion control.
<i>Themeda anathera</i> (Nees ex Steud.) Hack.*	--	H	Ind Or	NE	2800-3600	10	Leaves, Whole plant	Folk uses for sprains and wounds as warm poultice.
<i>Tripogon filiformis</i> Nees ex Steud.*	Krash	H	Ind Or	NE	3600-4000	6	Aerial parts	Used in tribal medicine for boils and inflammation.
POLEMONIACEAE								
<i>Polemonium caeruleum</i> L.	Kudighaa	H	Reg Bor Temp	--	3000-3700	6,7,10	Roots, Whole plant	Used to treat cough, bronchitis, inflammatory conditions, and as a sedative.
POLYGONACEAE								
<i>Bistorta vacciniifolia</i> (Wall. x Meissn.) Greene		Sh	Reg Himal China		3000-4000	1, 3, 7, 9	Leaves	Traditionally employed for its astringent and anti-inflammatory properties, used to treat gastrointestinal issues and promote wound healing.
<i>Fagopyrum esculentum</i> Moench	Kaathu	H	Reg Himal China		2800-3600	8	Leaves, flowering stems.	The plant is used internally to manage conditions such as high blood pressure, gout, varicose veins, chilblains, and radiation-induced damage. Its efficacy is often enhanced when combined with vitamin C, which aids in the absorption of its active compounds.
<i>Oxyria digyna</i> Hill	--	H	Reg Bor Alp et Arct		2800-3600	1,2,3,5,6,8, 9,10	Leaves, roots, stems.	Treat scurvy and dysentery. Leaves rich in vitamin C, used to treat scurvy, roots, stems, and leaves cooked and eaten for dysentery, also used traditionally to treat gastritis, improve appetite, and as a stomachic and anti-flatulent.
<i>Persicaria amplexicaulis</i> (D. Don) Ronse Decr.	Dori ghaa	H	Reg Himal		2800-3600	1,2,3,4,5,6, 7,8,9,10	Roots, leaves.	Used to treat scurvy and dysentery. The leaves, rich in vitamin C, are specifically employed in the management of scurvy, while the roots, stems, and leaves are cooked and consumed to alleviate dysentery. Additionally, it is valued in traditional medicine for treating gastritis, enhancing appetite, and acting as a stomachic and anti-flatulent, supporting digestive health.
<i>Persicaria bistorta</i> Samp.	Roti muhin	H	Reg Himal		3000-3400	1, 3, 7, 9	Rhizome, flowers.	Utilized in Buddhist medicine as an antipyretic and anti-inflammatory, treats fever, tonsillitis, cough and cold.
<i>Persicaria hydropiper</i> (L.) Delarbre	-	H	Reg temp bor et austr		2800	1, 3, 7, 9	Leaf	Treat cattle's tongue infection.
<i>Persicaria vivipara</i> (L.) Ronse Decr.	--	H	Reg Bor et Arct		3300-3500	7,9,10	Whole plant	Used for gastric troubles, inflammation, and skin boils.
<i>Persicaria wallichii</i> Greuter and Burdet	Chaur	H	India (Ind Subcont As Trop)		3000-3400	1, 3, 7, 9	Root, Leaves	Used in diuretic preparations and urinary tract issues. Treats sore throat, cough, and fever.
<i>Persicaria amplexicaulis</i> D. Don	Dori ghaa	H	Nepal Afg Ind Bhutan China		2800-3400	1, 3, 7, 9	Leaves, roots.	Used in folk veterinary practices, traditional medicine for treating fever, wounds, and inflammatory conditions.
<i>Persicaria nepalensis</i> (Meisn.) Miyabe	Trod	H	Reg Himal		2800-3600	1, 3, 7, 9	Leaves, Stem	Used for dysentery, bleeding wounds, rheumatism, and toothache. Used in folk veterinary practices Applied on bums, wounds, and ulcers.
<i>Persicaria polystachya</i> Opiz	-	H	Europe		3000-3400	1, 3, 7, 9	Aerial parts	Treats intestinal infections, cough, and internal bleeding. Medicinal value in Buddhist folk healing.
<i>Pleuropterypyrum rumicifolium</i> (Royle ex Bab.) Munshi and Javeid*	Chaur	H	Reg Himal	NE	3600-4000	6	Root, Leaves	Used for bone fractures, blood purification, and appetite stimulant. Rare plant, important in Buddhist medicinal practices.
<i>Polygonum affine</i> D. Don	-	H	Reg Himal		3000-3300	1, 3, 7, 9	Rhizome, Leaves	Used for wounds, diarrhoea, and blood purification.
<i>Polygonum molle</i> D. Don		H	Reg Himal		3200-3500	1, 3, 7, 9	Tender shoots, whole plant.	Traditionally used for treating diarrhoea.

<i>Polygonum recumbens</i> Royle ex Bab.*	--	H	Reg Himal	NE	3600-4000	9	Whole plant	Used traditional Buddhist medicine for joint pain, eye disorders, and as poultice for inflammation
<i>Polygonum rotboelliioides</i> Jau b. and Spach	--	H	Reg Himal		3600-4000	1,2,3,10	Stems, Leaves	Used for cough, throat inflammation, and bronchitis in Buddhist traditions.
<i>Polygonum tortuosum</i> D. Don	--	H	Reg Himal		2800-3600	6	Rootstock, Leaves	Useful in digestive ailments, gastric ulcers, and liver complaints.
<i>Polygonum vacciniifolium</i> Wall. ex Meisn.*	--	H	Reg Himal	NE	2800-3600	1,6,10	Leaves	Used in burns, cuts, and eye infections.
<i>Rheum australe</i> D. Don*	Chuchi	H	Reg Himal	NE	2800-3600	2,6,9,10	Roots, Rhizome	Used to treat constipation and liver disorders, and also acts as a mild purgative. In addition to its digestive applications, it holds significant value in both Ayurvedic and Amchi systems of medicine for the treatment of bone fractures and other bone-related ailments, highlighting its role in promoting musculoskeletal healing.
<i>Rheum webbianum</i> Royle*	Dolu	H	Reg Himal	NE	2800-3600	1,2,6,10	Roots	Used for wounds, fever, laxative, and skin ailments. Wild rhubarb, used in Buddhist pharmacopoeia.
<i>Rheum spiciforme</i> Royle	-	H	Reg Himal		3000-4500	1, 3, 7, 9	Roots, Stem	Effective against dyspepsia, gastrointestinal disorders, and mouth ulcers. Traditional medicine in Buddhist cultures.
<i>Rumex acetosa</i> L.		H	Reg Himal Europe As Bor		3500-4000	5	Leaves, Whole plant	Used as diuretic, for kidney stone relief, digestion, and scurvy, Edible leaves (sour taste), used in salads and herbal teas.
<i>Rumex nepalensis</i> Spreng.	Malora	H	As Occ Ind Or Malaya Afr Austr	--	2800-4000	1,2,3,5,6,7, 9,10	Leaves, Root	Applied on burns, eczema, cuts, and skin eruptions. Common ethnoveterinary and ethnobotanical plant.
PRIMULACEAE								
<i>Androsace delavayi</i> Franch.	--	H	Yunnan		3000-4500	1	Flowers	Buddhist medicine for spiritual cleansing. Ornamental alpine flower.
<i>Androsace rotundifolia</i> Hardw.*	Jogni Ghas	H	Reg Himal China	NE	2800-3600	6	Whole plant, Rh	Used for wound healing, antiseptic purposes in folk remedies. Eye disease. Found in moist rock crevices, sacred among Buddhist tribes.
<i>Androsace sarmentosa</i> Wall.	Jogni Ghas	H	Reg Himal		3000-3400	1, 3, 7, 9	Leaves, Whole plant	Used in local medicine for fever and skin rashes. Ground cover plant in high-elevation meadows.
<i>Primula denticulata</i> Sm.*	Guna	H	Reg Himal	NE	2800-3400	1,2,6,7,9,10	Flowers, Leaves	Used for cough, bronchitis, and respiratory relief.
<i>Primula dickieana</i> G.Watt	--	H	Reg Himal		3600-4000	6	Leaves, Roots	Applied on cuts, swelling, and headaches in traditional poultices.
<i>Primula macrophylla</i> D. Don*	Haldimaure	H	As et Am Bor	NE	3300-4000	1,2,5,6,9,10	Rhizome, Leaves	Folk use in fever, sinus relief, and wound healing. Important Amchi herb, often combined with other roots.
<i>Primula munroi</i> Lindl. ssp. <i>munroi</i> Balf.f. ex S.K. Basak and Maiti	Guna	H	Europe As Bor		3000-4000	3, 5, 8, 11	Whole plant	Effective against sores, joint swelling, and dermatitis. Grows in alpine herb mats, used in folk herbalism.
<i>Primula reidii</i> Duthie*	--	H	Reg Himal	NE	2800-3600	10	Leaves, Roots	Used for gastrointestinal issues, vomiting, and inflammation.
<i>Primula rosea</i> Royle	Guna	H	Reg Himal		3000-3200	1, 3, 7, 9	Flowers, Leaves	Known for anti-inflammatory and mild sedative uses.
<i>Primula Stuartii</i> Wall.**	--	H	Reg Himal	E	3600-4000	6	Whole plant	Rarely used for wound poultices, sacred in some folk ceremonies.
<i>Primula elliptica</i> Royle	-	H	Reg Himal		3000-3400	1, 3, 7, 9	Leaves	Used for cold, flu, and eye infections. Wild ornamental, forms mats on alpine slopes.
RANUNCULACEAE								
<i>Aconitum heterophyllum</i> Wall.	Patish	H	Reg Himal		3000-3300	1,2,5,6,7,9, 10	Roots	Treats fever, diarrhoea, stomach-ache, and malaria Most valued Ayurvedic herb for chronic dysentery.
<i>Aconitum violaceum</i> Jacq. ex Stapf.*	Atis	H	Reg Himal	NE	3600-4000	1,2,4,5,6,8, 9	Root (detoxified)	Treat diarrhoea, anthelmintic, digestion, fever and stomach-ache. Used for neuralgia, gout, rheumatism, and inflammation Highly toxic, used with caution in traditional systems.
<i>Actaea spicata</i> L.	--	H	Reg Bor Temp		2800-3400	8,10	Rhizome, Rootstock	Treat eye complaints, asthma and rheumatism. Treats muscle cramps, arthritis, nerve weakness.
<i>Anemonastrum obtusilobum</i> (D. Don) Mosyakin**	Mamiri	H	Reg Himal	E	3100-3300	1,2,6,7,9,10	Whole plant	Used for fever, gastro issues, wounds, and burns Sometimes used as protective charm in folk practices.
<i>Anemonastrum polyanthes</i> (D. Don) Holub		H	Reg Himal		2800-3600	8,9,10	Leaves, Rhizomes	Applied in skin diseases, itching, and minor wounds.
<i>Anemonastrum tetrasepalum</i> (Royle) Holub**	--	H	Reg Himal	E	3600-4000	1,2,6,7,9,10	Whole plant	Used in gastro disorders, intestinal worms, fever. Local ethno-religious practices.
<i>Aquilegia nivalis</i> (Brühl) Falc. ex Munz	--	H	Reg Himal		3600-4000	2,5,6	Flowers, Leaves	Used for respiratory issues, cold, and asthma.
<i>Aquilegia pubiflora</i> Royle	--	H	Reg Himal Ind Or		2800-3600	4,5,8	Flowers, Roots	Treats toothaches, cold, cough, and tonsillitis.
<i>Caltha palustris</i> L.	Shomalap	H	Reg bor temp et arct		3500-4000	1,3,6,9,10	Whole plant	Used for rheumatism, pain, wounds, and menstrual regulation. Highly toxic raw, used after boiling in traditional settings.
<i>Clematis acuminata</i> DC.	Baldkuja	Sh	Reg Himal		3600-4000	2,7,8,9,10	Leaves, Stems	Used for headaches, sores, and skin infections.
<i>Clematis barbellata</i> Edgew.	-	Sh	Reg Himal		2800-3600	2,7,8,9,10	Leaves, Whole plant	Treat sores, skin diseases and tumours. Treats eye infections, scabies, boils, and itching.

								Traditionally used in herbal pastes.
<i>Clematis montana</i> Buch.-Ham. ex DC.*	Baldkuja	SH	Reg Himal	NE	2800-3600	2,7,10	Bark, Leaves	Used as anti-inflammatory, and to treat joint pain and bruises.
<i>Delphinium brunonianum</i> Royle	Kasturi lata	H	Reg Himal		3600-4000	1,5,6	Whole plant	Used for head lice, skin eruptions, and muscle pain.
<i>Delphinium cashmerianum</i> Royle	--	H	Reg Himal		2800-4200	2	Leaves, Roots	Plant is most toxic when it is young. Treats joint inflammation, wounds, and sciatica.
<i>Delphinium denudatum</i> Wall.	Jadwar	H	Reg Himal		3100-3400	2	Tuberous root	Root decoction treat ulcer, stomach pain, anthelmintic, respiratory complaint and toothache, used for nervous disorders, epilepsy, paralysis Ayurvedic drug known as "Nirvishi.
<i>Delphinium kumaonense</i> Huth	--	H	Reg Himal		2800-3600	5,6,10	Roots, Leaves	Used for fever, headache, and snakebite antidote Rare wild herb with folk ritual importance.
<i>Delphinium vestitum</i> Royle	--	H	Reg Himal		3600-4000	9,10	Leaves, Roots	Effective against bronchitis, body ache, tonsillitis.
<i>Eriocapitella rivularis</i> (Buch.-Ham. ex DC.) Christenh. and Byng	Piplugha, Meen	H	Reg Himal		2800-3600	1,2,5,7,8,9,10	Whole plant	Used for toothache, bleeding wounds, and antibacterial wash.
<i>Eriocapitella rupicola</i> (Camb.) Christenh. and Byng	Mangal tulshi	H	Reg Himal		3600-4000	1,2,4,5,6,9,10	Rhizome, Leaves	Used in rheumatic pain, eye disorders, and respiratory infections. Occasionally used in folk eye remedies.
<i>Eriocapitella vitifolia</i> (Buch.-Ham. ex DC.) Nakai	Mimiri	H	Reg Himal		3000-3200	2,8,9,10	Leaves, Flowers	For cuts, boils, sore throat, and wounds.
<i>Paraquilegia microphylla</i> (Royle) J.R. Drumm. and Hutch.	--	H	Reg Himal		3600-4000	4,6	Whole plant	Used in wound healing, cough, and mild fever. Rare alpine flower, sacred in high-altitude Buddhist culture.
<i>Ranunculus diffusus</i> DC.	--	H	Reg Himal Ind Or Malaya		2800-3600	2,3,6,7,9,10	Whole plant	Used to treat eczema, skin burns, and blisters.
<i>Ranunculus hirtellus</i> Royle	--	H	Reg Himal		2800-3600	1,2,6,8	Leaves, Stems	Treats toothache, rheumatism, and bone swelling. Acrid when raw, folk uses involve heated poultices.
<i>Ranunculus trichophyllus</i> Chai x	--	H	Europe Oriens		3300-4100	2,5	Aerial parts	Used in eye ailments, skin itching, and anti-bacterial washes.
<i>Thalictrum alpinum</i> L.		H	Reg Bor et Arct		3000-3800	2,5,7,9,10	Roots, Whole plant	Treats fever, pain, and infections.
<i>Thalictrum chelidonii</i> DC.	--	H	Reg Himal		2800-3600	9,10	Whole plant, Roots	Used for wounds, inflammation, and fever. Traditional poultices in tribal practices.
<i>Thalictrum cultratum</i> Wall.	Mamiri	H	Reg Himal		2900-3300	7,9,10	Leaves, Roots	Applied for joint pain, skin problems, and boils.
<i>Thalictrum foetidum</i> L.	Mamiri	H	Europe Sibir		2800-3500	2	Whole plant	Used to treat malaria, intestinal worms, and respiratory infections. Bitter plant, traditional ethnoveterinary applications.
<i>Thalictrum foliolosum</i> DC.	Mamiri	H	Europe Reg Himal		2800	10	Roots, Leaves	Used for headaches, diarrhoea, and liver disorders. Sometimes used in ritualistic herbal baths.
<i>Thalictrum platycarpum</i> Hk. f. and Th.	-	H	Reg Himal		2800-3100	1, 3, 7, 9	Roots, Leaves	Used as a tonic, for digestive and skin disorders.
<i>Thalictrum reniforme</i> Wall.*	--	H	Reg Himal	NE	2800-3600	2,6,10	Roots, Whole plant	Cataract, treats gastric trouble, fever, and wounds.
<i>Thalictrum secundum</i> Edgew.*	Mamiri	H	Am Bor Reg Himal	NE	2800-3400	2,6,7,8,9,10	Leaves, Stems	Applied for muscle swelling, sore throat, and pain relief.
<i>Thalictrum virgatum</i> Hk.f. and Th.	--	H	Reg Himal		3600-4000	6	Whole plant	Used for burns, infections, and anti-inflammatory treatment.
<i>Thalictrum chelidonii</i> DC.	-	H	Reg Himal		3000-3300	1, 3, 7, 9	Roots, Leaves	Used for fever, skin diseases, wounds, and digestive problems.
RHAMNACEAE								
<i>Helinus lanceolatus</i> Brand	--	H	Reg Himal		3600-4000	10	Roots, Leaves	Used for cuts, fever, and ulcers in traditional medicine.
<i>Rhamnus virgatus</i> Roxb.*	-	Sh	Ind Or As Bor	NE	2800	10	Bark, Leaves	Used as laxative, anti-inflammatory, and for skin eruptions.
ROSACEAE								
<i>Agrimonia pilosa</i> Ledeb.	Kuri	H	Europe As		2800	2,7	Whole plant	Treat, diarrhoea, cough and urinary problems. Used for fever, intestinal infections, wound healing, and throat pain. Used in traditional tea for detoxification and as mild astringent.
<i>Argentina microphylla</i> (D. Don) Soják*	-	H	Reg Himal	NE	3500-4500	4, 8, 9	Whole plant	Used in diarrhoea, ulcers, and stomach upsets.
<i>Argentina peduncularis</i> (D. Don) Soják	Bajradanti	H	Reg Himal		3600-4000	1, 3, 7, 9	Leaves	Used for boils, eye infections, and minor wounds.
<i>Cotoneaster acuminatus</i> Lindl.	Michrunthi, Riunsh	Sh	Reg Himal		2800-3600	2,3,6,7,8,9,10	Leaves	Occasionally used for toothache and gums.
<i>Cotoneaster</i>	Chrunthi,	Sh	Reg Himal Tibet China	NE	2800-3600	2,7,8,9,10	Leaves, Fruits	Used for diarrhoea, skin ailments, and fever in local traditions. Scabies, rheumatism, arthritis,

<i>affinis</i> Lindl.*	Riunsh		Bhutan					Folk use for diuretic and wound cleaning. Wild hedge species, good for soil stabilization. Minor traditional use for cough and cold.
<i>Cotoneaster microphyllus</i> Wall. ex Lindl.	Kaluachha	Sh	Reg Himal		2800-3600	2,6,9,10	Leaves, Twigs	Known for antibacterial, antidiabetic, and digestive uses. Folk use for diuretic and wound cleaning.
<i>Dasiphora fruticosa</i> (L.) Rydb	Bhumbal	Sh	Sibir Reg Himal/Reg Bor Temp		3000-3600	2	Leaves, Roots	Used for diarrhoea, fever, and tonic for digestion. Common alpine hedge shrub, great for landscape restoration. Used for dysentery, fever, and gastric irritation.
<i>Filipendula vestita</i> (Wall. ex G. Don) Maxim.	--	H	Reg Himal		2800-3600	6,7,8,9	Leaves, Flowers	Used for fever, skin rashes, and diuretic effects.
<i>Fragaria nubicola</i> (Lindl. ex Hk.f.) Lacaita	Bumbra	H	Reg Himal Amer Bor Ind Or		2800-3600	1,2,3,4,5,6,7,8,9,10	Fruits, Leaves	Edible fruits, used for anaemia, skin glow, and immune tonic. Wild strawberry, high in vitamin C, snack for shepherds.
<i>Fragaria vesca</i> L.	Bumbra	H	Reg Himal		2800-3600	8	Fruits, Leaves, Roots	Used for gastric issues, cardiac stimulant, and laxative. Common wild strawberry, also used in folk skin creams.
<i>Geum elatum</i> Wall. ex G. Don*	Bhotsaag	H	Reg Himal	NE	3600-4000	1,2,4,5,6,9,10	Roots, Leaves	Used for wounds, joint inflammation, and anti-rheumatic remedies.
<i>Geum roylei</i> Wall.	--	H	Reg Himal Bor Occ		2800-3600	1,2,5,10	Whole plant	Used for digestive problems, nausea, and cold. Part of Amchi medicinal systems.
<i>Geum urbanum</i> L.	-	H	Himal Bor Occ		3000-3600	1, 3, 7, 9	Roots	Treats mouth ulcers, throat infections, and as a digestive tonic.
<i>Potentilla argyrophylla</i> Wall. ex Lehm.	Dori	H	Reg Himal		3000-3500	6,8,9,10	Roots, Leaves	Used for wound healing, fever, and gastric problems.
<i>Potentilla atrosanguinea</i> G. Lodd. *	Bhumphal/ Dori	H	Reg Himal	NE	3600-4000	1,2,4,5,6,7,8,9,10	Aerial parts	Used in cold, joint pains, and insect bites.
<i>Potentilla crantzii</i> (Crantz) Beck ex Fritsch		H	Reg Himal Europ et As bor		3000-3200	1, 3, 7, 9	Whole plant	Folk use for ulcers, mouth infections, and digestive relief. Used in cough, bronchitis, and chronic respiratory conditions.
<i>Potentilla desertorum</i> Bunge	--	H	Reg Himal		3600-4000	1,5,6,10	Roots, Leaves	Used for fever, body aches, and minor bleeding wounds.
<i>Potentilla fulgens</i> Wall. ex Sims.	--	H	Reg Himal		2800-3600	5,6,8	Root, Rhizome	Used in dental care, anti-ulcer agents, rhizome has astringent, antimicrobial, antihypertensive, antiallergic and immune-stimulating, diarrhoea, and antioxidant tonic.
<i>Potentilla nepalensis</i> Hk.	--	H	Reg Himal		3600-4000	1,2,6,8,9,10	Aerial parts	Applied to skin burns, pimples, and cuts.
<i>Potentilla purpurea</i> (Royle) Hk.f.*	-	H	Reg Himal	NE	3500-4500	4, 5, 8, 9, 10	Leaves, Roots	Used in bone healing and as a styptic for cuts.
<i>Potentilla supina</i> L.	Dori	H	Geront temp et trop		2800	9,10	Whole plant	Used for urinary complaints, kidney infections, and antipyretic use.
<i>Potentilla tetrandra</i> (Bunge) Hk.f.	--	H	Reg Himal		3600-4000	5,6,8,10	Aerial parts	Helps in fever, gastric problems, and body ache.
<i>Prunus cornuta</i> (Wall. ex Royle) Steud.	Jammu	T	Reg Himal Europe As Bor Occ		2800-3600	2,6,7,8,10	Bark, Seeds	Used for toothache, astringent, and anti-inflammatory.
<i>Rosa macrophylla</i> Lindl.*	Jangli Gulab/Kujja	SH	Reg Himal China	NE	2800-3400	2,3,6,8,9,10	Flowers, Fruits	Used for respiratory infections, wound healing, and digestive issues. Wild Himalayan rose; fruit is rich in vitamin C (hip tea).
<i>Rosa sericea</i> Lindl.	Shami, Aakh	Sh	Reg Himal		2800-3600	1,2,3,5,6,7,8,9,10	Flowers, Leaves	Used in fever, ulcers, and as coolant.
<i>Rosa roxburghii</i> T ratt.	-	SH	China		2800-3400	1, 3, 7, 9	Fruits, Leaves	Known for antioxidant, immune booster, and appetizer properties. Highly nutritious rose hip, used in herbal formulations.
<i>Rosa webbiana</i> Wall. ex Royle	-	SH	Reg Himal		3000-3400	1, 3, 7, 9	Petals, Roots	Applied on boils, skin eruptions, and eye infections.
<i>Rubus niveus</i> Thunb.	--	Sh	Reg Himal		2800-3600	2,7,8,10	Fruits, Roots	Treats fever, diarrhoea, and oral ulcers. Known as Himalayan blackberry, highly nutritive wild fruit.
<i>Rubus pedunculatus</i> D. Don	Kaala Aakh	Sh	Reg Himal		2800-3600	2,7,8,9,10	Leaves, Fruits	Used for sore throat, wounds, urinary issues. Edible fruits, high-altitude raspberry-like shrub.
<i>Sibbaldia cuneata</i> Edgew.	--	H	Reg Himal		3600-4000	1,2,6,8,9,10	Leaves, Whole plant	Applied on wounds, sprains, and insect stings. Ground cover in alpine meadows, medicinal in Tibet/Amchi traditions.
<i>Sorbus foliolosa</i> (Wall.) Spach	Kanitra	Sh	Reg Himal		2800-3600	2,6,8,9,10	Bark, Fruits	Used for eye infections, stomach pain, and detoxification.
<i>Sorbus wallichii</i> (Hk.f.) T.T.Yu	Banaru	Sh	Reg Himal		2800-3600	2,6,7,9,10	Bark, Fruits	Traditional use in folk tonics and heart strengtheners.
<i>Spiraea bella</i> Sims.	Chaku	Sh	Reg Himal		3600-4000	6,7,9,10	Roots, Aerial parts	Used in fever, inflammation, and diarrhoea, sores and wounds.
<i>Spiraea canescens</i> D. Don	Brajai, Michriunthi /Chakhu	Sh	Reg Himal		2800-3600	2,6,7,9,10	Aerial parts	Used for cuts, stomach issues, and cooling effects. Ornamental hedge plant.
RUBIACEAE								
<i>Galium aparine</i> L.	Susha	H	Reg Bor Temp et Magell	--	2800-3400	2,5,6,7,8,9,10	Whole plant	Used for urinary tract infections, lymphatic drainage, and skin eruptions. Known as cleavers, sticky herb used in herbal teas.
<i>Galium asperifolium</i> Wall	Shushi	H	Europe As Temp		2800-3000	6,10	Aerial parts	Folk use for wound dressing, swelling, and bruises.

<i>Galium elegans</i> Wall.	--	H	Reg Himal		2800-3600	6,7,10	Whole plant, Leaves, Stems	Applied for sores, joint pain, and as an emollient. Used in eye problems, swelling, and digestive relief.
<i>Galium rotundifolium</i> L.	--	H	Europe As Temp	--	2800-3600	2,7,8,9,10	Leaves, Roots	Used to relieve burns, diarrhoea, and internal inflammation. Part of traditional Amchi medicine among Buddhist medicine.
<i>Galium verum</i> L.	-	H	Europe As Temp		2800	1, 3, 5	Flowers, Whole plant	Boils, tonsil, wounds. Used for jaundice, liver disorders, and as a mild sedative. Historically used in cheese making and as a yellow dye.
RUTACEAE								
<i>Boenninghausenia albiflora</i> (Hk.) Meisn.*	Pissumar booti	H	Reg Himal Japan	NE	2800-3600	10	Leaves, roots, aerial parts.	Used for its antiseptic and styptic properties; leaf juice is applied to wounds to prevent infection, while crushed leaves are used to stop bleeding from cuts. It is also used externally to treat scabies, and crushed leaves are placed in the nostrils as a traditional remedy for malaria. For headache relief, leaves are applied to the forehead. The plant is known to possess antibacterial, antifungal, antiviral, anti-inflammatory, and anti-tumour activities, and is employed in traditional medicine to manage pneumonia, dysentery, rheumatism, and various skin diseases.
<i>Skimmia lauroleola</i> (DC.) Decne.	Ner	SH	Reg Himal		2800-3600	1, 3, 7, 9	Leaves, bark.	Treatment for smallpox: Leaves used traditionally. - Air purification: Smoke from burning leaves believed to purify air and ward off evil spirits. - Cough remedy: Leaves used in traditional medicine.
SALICACEAE								
<i>Salix acutifolia</i> Willd.	Beli	T	Europe As Bor	-	2800-3000	1, 3, 7, 9	Bark, leaves	Contains salicin and salicortin, which have analgesic and anti-inflammatory properties.
<i>Salix denticulata</i> Anders.*	Chijri/Basil	Sh	Reg Himal	NE	3800	1,2,3,4,5,6,7,8,9,10	Aerial parts	Traditionally used for various ailments as plants contains flavonoid glycosides and other compounds.
<i>Salix disperma</i> Roxb. ex D. Don	--	Sh	Reg Himal		2800-3600	2,6,7,8,10	Bark	Bark contains salicin, used as an anodyne and febrifuge.
<i>Salix lindleyana</i> Wall. ex Anders.	--	Sh	Reg Himal		3800	1,2,5,6,9,10	Stem.	Traditionally used for various ailments as plants contains flavonoid glycosides and other compounds.
<i>Salix daphnoides</i> Vill.	-	Sh	Europe As Bor	-	3000-3300	1, 3, 7, 9	Bark	Bark contains salicin, used as an anodyne (pain reliever) and febrifuge (fever reducer).
SAPINDACEAE								
<i>Acer acuminatum</i> Wall. ex D. Don*	Mandru	T	Reg Himal	NE	3000-3400	2,6,7,8,9,10	Bark, Wood	Used in treating fever, eye disorders, and bone fractures.
<i>Acer caesium</i> Wall. ex Brandis	Mandru	T	Reg Himal		2800-3400	2,7,10	Bark, Leaves	Bark decoction used for fever, diarrhoea, and dysentery.
SAXIFRAGACEAE								
<i>Astilbe rivularis</i> Buch.-Ham.	Phah	H	Reg Himal		3600-4000	7	Roots, Leaves	Blood purifier and Toothache. Used for fever, digestive issues, and joint pain.
<i>Bergenia pacumbis</i> (Buch.-Ham. ex D. Don) C.Y.Wu and J.T.Pan	Pashan Bhed	H	Reg Himal		2800-3400	1, 2, 5, 7	Rhizome	Highly effective in kidney stones (Pashanbheda), UTIs, and diuretics, Asthma, boils, cuts, wounds, burns, fever, liver complaints, piles, kidney stone, urine complaints. Classical Ayurvedic herb, conserved in ethnomedicine gardens.
<i>Bergenia stracheyi</i> (Hk.f. and Th.) Engl.*	Pashanbheda	H	Reg Himal	NE	3600-4000	1,2,6,7,9,10	Rhizome, Leaves	Used to treat asthma, kidney stones, boils, ophthalmia, cuts, burns, liver problems, piles, urine problems and dysentery.
<i>Bergenia ciliata</i> (Haw.) Sternb.	Pashanbheda	H			2800-3000	1, 3, 7, 9	Rhizome, Leaves	The plant is traditionally used to treat kidney disorders, eye ailments, and respiratory infections. It is particularly valued in the treatment of asthma, kidney stones, boils, ophthalmia, cuts, burns, liver disorders, piles, urinary complaints, and dysentery. Widely used in folk tonics, the plant is also cultivated for its use in Ayurveda as a key source of the medicinal drug "Pashanbheda", which is renowned for its litholytic (stone-dissolving) properties.
<i>Saxifraga brunonis</i> Ser.	Padali	H	Reg Himal		3000-3200	1, 3, 7, 9	Whole plant	Used for urinary disorders, fever, and tonic preparation.
<i>Saxifraga filicaulis</i> Wall. and Ser.*	--	H	Reg Himal	NE	>4100	6	Whole plant	Treats gastric trouble, diarrhoea, and skin inflammation.
<i>Saxifraga jacquemontiana</i> Decne*	--	H	Reg Himal	NE	>4100	8	Leaves, Roots	Applied for wound healing, eye issues, and cold relief.
<i>Saxifraga pumassifolia</i> D. Don*	--	H	Reg Himal	NE	2800-3600	1,5,6,10	Aerial parts	Used for cough, lung disorders, and respiratory relief.
<i>Saxifraga sibirica</i> L.	--	H	As Bor et Arct		3500-4500	1,5,9	Whole plant	Treats burns, bleeding, and internal wounds.
<i>Saxifraga stenophylla</i> Royle*	-	H	Reg Bor et Arct		3300-4500	3, 5, 9, 10	Leaves, Rhizome	Applied for joint inflammation, urinary trouble, and chronic fatigue.
SCHISANDRACEAE								
<i>Schisandra grandiflora</i> (Wall.) Hk.f. and Th.	--	Sh	Reg Himal		2800-3600	1, 3, 7, 9	Fruits, Leaves	Used for fatigue, tuberculosis, lung weakness, and as a tonic adaptogen. Aromatic climber, used in traditional Amchi and Buddhist medicine.
SCROPHULARIACEAE								

<i>Scrophularia koelzii</i> Pennell*	Bel kujja	H	Reg Himal Occ Illus	NE	2800-3600	2,6,8,10	Leaves, Stems	Used for inflammation, throat pain, and fever, Amchi system of medicine use for anti-inflammatory decoctions.
<i>Scrophularia decomposita</i> Royle ex Benth.*	-	H	Europe Austr As Occ Reg Himal	NE	2800-3500	1, 3, 7, 9	Whole plant	Treats gout, arthritis, and dermatitis, used in foot bath therapy.
<i>Scrophularia edgeworthii</i> Benth.*	Chungs	H	Reg Himal	NE	2800-3600	7,10	Leaves	Applied for skin burns, abscesses, and joint inflammation. Folk herb in Buddhist and tribal traditions.
<i>Scrophularia himalensis</i> Royle ex Benth.**	--	H	Reg Himal	E	2800-3600	1,2,6,7,8,9,10	Whole plant	Known for wound healing, earache, toothache, and ulcers, Used extensively in Amchi medicine in high-altitude regions.
<i>Verbascum thapsus</i> L.	Jangli tambakhu	H	Europe Oriens Reg Himal		2800-3100	1, 3, 7, 9	Leaves, Flowers	Treats bronchitis, cough, and lung infections. Known as "Mullein", used in respiratory teas.
SMILACACEAE								
<i>Smilax aspera</i> L.	-	SH	Europe Oriens Ind Or	-	2800-3300	1, 3, 7, 9	Roots, Rhizome	Used for blood purification, skin disorders, gout, and joint pain. Known as "Sarsaparilla", used in tonics and syrups.
<i>Smilax vaginata</i> Decne.		SH	Reg Himal		3000-3400	2,7,8,10	Rootstock, Shoots	Treats urinary disorders, rheumatism, and acts as a rejuvenator, used in folk decoctions.
URTICACEAE								
<i>Girardinia diversifolia</i> (Link) Friis	Jharan	H	Ind Or Malaya		2800-3000	1, 3, 7, 9	Leaves, roots, bark.	Used to treat headaches, joint pain, gonorrhoea, fever, and swelling. Root paste is applied for sprains and fractures, while root powder is taken for blood purification and internal injuries. Leaf juice is used for anaemia, fever, joint aches, and menstrual issues. Bark juice helps manage diabetes.
<i>Lecanthus peduncularis</i> (Roy le) Wedd.*	--	H	India	NE	2800-3600	6	Roots, whole plant.	Root is ground and applied to sprains, to relieve fever.
<i>Urtica hyperborea</i> Jacq. ex Wedd.	--	Sh	Reg Himal		2800-3600	2,6,8	Leaves	As blood purifier.
<i>Urtica mairei</i> H. Lévl.	-	H	China (Yunnan)	-	3000-3300	1, 3, 7, 9	Leaves, Roots.	Roots in managing prostate health.
VIBURNACEAE								
<i>Viburnum cotinifolium</i> D. Don	Tallahna	SH	Reg Himal		2800-3000	2,6,7,8,10	Leaves, Bark	The bark of the plant is used in bone fracture, wound healing, and muscle sprains.
<i>Viburnum grandiflorum</i> Wal l. ex DC.*	Dabh	SH	Reg Himal	NE	2800-3000	6,8,9,10	Roots, Bark	The leaves, bark, and fruits have been used for treating respiratory issues, skin ailments, and a range of other conditions, coughs and colds. Specifically, the leaves and bark are used for, while the flower poultice is used for skin problems and inflammation. The plant is also used for treating upset stomachs, abdominal pain, and other ailments.
<i>Viburnum nervosum</i> D. Don*	Tallahna	SH	Reg Himal	NE	2800-3200	2,3,7,8,9,10	Leaves, Bark, Wood, Stem	Used in traditional medicine for menorrhoea. Extracts from leaves are used for wound healing, and bark decoctions for menstrual cramps. The fruits are consumed raw, crushed, or used to make juice, and are believed to manage diabetes, fevers, and respiratory.
<i>Viburnum mullaha</i> Buch. -Ham. ex D. Don	Dabh	SH	Reg Himal		3000-3800	2,7,10	Fruits, Bark	Fruit used to treat constipation, indigestion, and digestive ailment.
VIOLACEAE								
<i>Viola biflora</i> L.	Banafsha	H	Reg Bor Temp	-	2800-3400	1,2,4,5,6,7,8,9,10	Whole plant, Leaves	Used for treating cough, cold, fever, bronchitis, and as an expectorant.
<i>Viola canescens</i> Wall.	Banafsha	H	Ind Or Malaya China		3000-3400	1,2,4,5,6,7,8,9,10	Whole plant, Flowers	Treats respiratory ailments, fever, sore throat, and skin diseases.
<i>Viola kunawarensis</i> Roy le	-	H	Reg Himal		3100-3500	1,2,4,5,6,7,8,9,10	Whole plant	Used for skin eruptions, respiratory disorders, and as a febrifuge.
<i>Viola pilosa</i> Bl.	Banafsha	H	Java	--	2800-3600	1,2,4,5,6,7,8,9,10	Leaves, Flowers	Treat bronchitis, asthma, cough and eye diseases, Cough, asthma, rheumatism, and as an anti-inflammatory.
VITACEAE								
<i>Parthenocissus semicordata</i> (Wall.) Planch.*	Lodi/Karnai	H	Ind Or/ Reg Himal	NE	2800-3600	2,7,8,9	Leaves, Stem	Traditionally used for bone fractures, rheumatic pain, and inflammation.
<i>Tetragastium serrulatum</i> (Roxb.) Planch.	--	Sh	Ind Or		2800	1	Roots, Leaves	Used in traditional medicine for ulcers, wounds, and gastrointestinal ailments.
ZINGIBERACEAE								
<i>Roscoeia alpina</i> Royle*	kakoli	H	Reg Himal	NE	2800-3600	2,7,10	Rhizome, Whole plant	Tonic, veterinary diseases, used traditionally to treat cough, cold, fever, indigestion, and inflammation.
<i>Roscoeia purpurea</i> Sm.*	Musli	H	Reg Himal Burma	NE	2800-3000	1, 6	Rhizome	Known for anti-inflammatory, digestive, and anti-pyretic properties, also used in tonic preparations.
GYMNOSPERMS								
CUPRESSACEAE								
<i>Juniperus communis</i> L.	Bithal/Bether	SH	Reg Bor Temp et Arct		3000-3400	1, 3, 7, 9	Berries, Leaves, Oil	Used for urinary tract infections, joint pain, bronchitis, and digestive issues Berries used in Ayurveda, aromatherapy, and ritual smoke.
<i>Juniperus indica</i> Bertol.	Bitaru/Bethari	Sh	Reg Himal Nepal		3800-4000	1,2,6,7,8,9,10	Twigs, Leaves,	Used in Amchi medicine for purification, wounds, fever, and respiratory problems.

			Bhutan Tibet				Wood	Sacred in Buddhist rituals, burned for incense.
PINACEAE								
<i>Abies pindrow</i> (Royle ex D. Don) Royle*	Tosh	T	Reg Himal	NE	2800-3600	2,6, 7, 8,9, 10	Resin, Bark, Needles	Used for asthma, bronchitis, joint pain, and fever. Important timber species, resin used in folk healing balms.
<i>Abies spectabilis</i> (D. Don) Mirb.*	Tosh	T	Reg Himal	NE	2800-3600	2,9, 7, 10	Resin, Leaves, Wood	Known for cough, tuberculosis, inflammation, and as incense in rituals. Sacred fir, used in Buddhist temples and aromatic smoke.
<i>Picea smithiana</i> (Wall.) Boiss.*	Rai	T	Reg Himal	NE	2800-3000	1, 3, 7, 9	Resin, Bark, Twigs	Used for cuts, burns, skin rashes, and cold infections. Timber tree, resin is antiseptic, planted in forestry plantations.
TAXACEAE								
<i>Taxus wallichiana</i> Zucc.*	Rakhal	T	Reg Bor Temp	NE	2800-3000	2,7,8,9,10	Leaves, Bark	Used for cancer treatment (source of Taxol), bronchitis, asthma, fever, and anti-inflammatory therapies. Sacred in Buddhist rituals, wood used for temples, walking sticks.
PTERIDOPHYTES								
ASPLENIACEAE								
<i>Asplenium laciniatum</i> D. Don ssp. <i>laciniatum</i>	--	Fn	Afr	--	2800-3200	2,7,10	Fronds	Used in folk decoctions for fever, sore throat, and internal heat.
<i>Asplenium yoshinagae</i> Makino	--	Fn	As Reg Himal	--	3600-4000	10	Aerial parts	Rarely used, sometimes applied for minor burns and skin irritations.
ATHYRIACEAE								
<i>Athyrium atkinsonii</i> Bedd.	--	Fn	Reg Himal		2800-3600	2,5,6,7,9,10	Fronds	Used in folk medicine for fever and cuts.
<i>Athyrium attenuatum</i> (C.B. Cl.) Tagawa	--	Fn	Reg Himal		2800-3600	2,5,6,7,8,9, 10	Whole plant	Applied on skin rashes and inflammation.
<i>Athyrium dubium</i> Ching	Chalingar	Fn	China	--	2800-3670	1,2,5,6,7,8, 9,10	Whole plant	Rarely used, by some tribal groups as decoction for cough relief.
<i>Athyrium fimbriatum</i> T. Moore	--	Fn	Amer Austr China	--	2800-3300	10	Fronds	Used for fever, tonic, and minor skin infections.
<i>Athyrium schimperi</i> Moq. ex Fée	--	Fn	South Afr Ind	--	2800-3600	2,6,7,10	Leaves	Traditional use for digestive complaints.
<i>Athyrium wallichianum</i> Ching	Lundri	Fn	Reg Himal		2800-3600	2,7	Fronds	Applied for swelling and sore muscles.
<i>Diplazium esculentum</i> (Retz.) Sw.	Lingdi	Fn	As China Reg Himal		2800-3000	9,10	Fronds	Traditional use for digestive complaints, swelling and sore muscles.
CYSTOPTERIDACEAE								
<i>Cystopteris fragilis</i> (L.) Bernh.	--	Fn	N Amer	--	2800-3600	2,7,8,9,10	Whole plant	Used in traditional medicine for wounds, cough, and diarrhoea.
DAVALLIACEAE								
<i>Davallodes beddomei</i> (C.Hope) M.Kato and Tsutsumi	--	Fn	Reg Himal India Bor, China		2800-4000	2,10,6	Whole plant	Used traditionally for cooling, minor injuries, and fever. Rare ethnobotanical use for inflammation and digestive troubles.
DRYOPTERIDACEAE								
<i>Cyrtomium caryotideum</i> C.Pr esl	--	Fn	As China	--	2800-3000	10	Fronds	Used in fever, intestinal disorders, and folk poultices.
<i>Dryopteris barbigera</i> (Moore) Kuntze	Loondri	Fn	Afghan-India Bor Yunnan	--	3000-3900	2,6,9	Fronds, Rhizome	Applied to burns, insect bites, and skin infections.
<i>Dryopteris justaposita</i> Christ.	--	Fn	Amer	--	2800-3500	2,7,10	Leaves	Used for fever, stomach disorders.
<i>Dryopteris komarovii</i> Kossinsky	--	Fn	Afghan	--	2800-4200	10	Aerial parts	Known in folk use for skin boils and wound cooling.
<i>Dryopteris wallichiana</i> (Spreng.) Hyl.	--	Fn	Reg Himal		2800-3600	2,7,10	Whole plant	Popular in folk poultices for bone aches, headache, and sprains.
<i>Polystichum atkinsonii</i> Bedd.	--	Fn	Ind Bor China austr	--	2800-4000	7,8,9	Fronds	Used for antipyretic and general weakness.
<i>Polystichum bakerianum</i> (Atkins.) Diels	--	Fn	Ind Bor Japan	--	2800-4000	6,7,10	Whole plant	Folk remedy for inflammation, skin irritation.
<i>Polystichum nepalense</i> (Spr.) C.Chr.	--	Fn	India Bor China		2800-3600	1,2,8,10	Leaves, Rhizomes	Known in Himalayan folk medicine for liver ailments and stomach upsets.
<i>Polystichum prescottianum</i> (Wall. ex Mett.) T. Moore	--	Fn	Reg Himal		3600-4000	1,4,5,6,7,8, 9,10	Fronds	Used for eye inflammation and throat infection.
<i>Polystichum sinense</i> Christ.	--	Fn	China	--	2800-4000	2,6,7,9,10	Fronds	Rarely used for minor inflammation in tribal herbalism.
<i>Polystichum squarrosum</i> (D. Don) Fée	--	Fn	Ind Or	--	3600-4000	2,7,9,10	Aerial parts	Used for cooling, minor wounds, and as blood purifier.
EQUISETACEAE								
<i>Equisetum arvense</i> L.	--	Fn	Reg Himal		2800-3600	2,5,8	Aerial Parts	Used as diuretic, for urinary tract infections, bone healing, bleeding, and skin disorders.

OSMUNDACEAE								
<i>Claytonmunda claytoniana</i> (L.) Metzgar and Rouhan	-	Fn	Vermont Northern Amer	-	2800-3400	-	Young fronds, Rhizomes	Used for intestinal worms, wounds, and respiratory congestion.
PTERIDACEAE								
<i>Adiantum edgeworthii</i> Hk.	--	Fn	Reg Himal		2800-3600	2,8,10	Aerial parts, Fronds	Known for bronchitis, jaundice, and mild laxative use.
<i>Adiantum venustum</i> D. Don	Raj	Fn	Reg Himal		2800-3600	2,6,7,8,9,10	Leaves	Used traditionally to treat cough, cold, fever, indigestion, and inflammation.
<i>Coniogramme fraxinea</i> (D. Don) Diels	-	Fn	India bor Malesia Ins Philipp Formosa		3000-3400	-	Whole plant	Known for its use in diuretic decoctions, cooling agents, and skin care.
<i>Coniogramme intermedia</i> Hieron.	--	Fn	India bor China Japan		2800-3600	10	Fronds	Used in folk medicine for fever, cuts, and internal inflammation.
<i>Cryptogramma stelleri</i> (S.G. Gmel.) Prantl	-	Fn	Amer, Europe Japan and Himal		3000-3200	10	Fronds, Rhizomes	Traditionally used for fever, bone health, and respiratory issues.
<i>Onychium lucidum</i> (D. Don) Spreng.	--	Fn	Reg Himal		2800-3600	2,7,8,9,10	Whole plant	Used in folk medicine for boils, skin eruptions, and fever.
<i>Preris cretica</i> L.	Baran	Fn	Mexico and Brazil		3000-3200	10	Fronds	Known for treating cough, fever, and skin diseases in tribal medicine.
<i>Preris vittata</i> L.	-	Fn	China Reg Himal		3000-3100	10	Fronds	Used for bronchitis, bone health, and as a blood purifier.
THELYPTERIDACEAE								
<i>Phegopteris conne ctilis</i> (Michx.) Watt.	-	Fn	Canada	-	3000-3300	10	Fronds, Rhizome	Used in tribal medicine for cuts, ulcers, and internal cooling.
<i>Pseudophegopteris levingei</i> (C.B.Cl.) Ching		Fn	China Reg Himal	-	3000-3300	1, 3, 7, 9	Whole plant	Used in Amchi and folk systems for respiratory issues and skin boils.

Abbreviations used: LF: Life Form, T: Tree, H: Herb, Sh: Shrub, Fn: Fern, G: Grass, Afr: Africa, Amer: America, Alp: Alpine, Arab: Arabia, Arct: Arctic, As: Asia, Austr: Australia, Bor: Borealis, Caucas: Caucasus, Centr: Central, Cosmop: Cosmopolitan, et: And, Geront: Gerontia, Graecia: Greece, Reg: Region, Himal: Himalayan, Ind: Indian, Malaya: Malaysia, Min: Minor, N Zelan: New Zealand, Oce: Occidentalis, Or: Orientalis, Orient: Oriental, Trop: Tropical, Temp: Temperate, E/**: Endemic, NE/**: Near Endemic, Sibir : Siberia, Temp: Temperate, 1:Alpine grassland, 2: Boulderly, 3: Dry alpine slope, 4: Degraded, 5: Marshy, 6: Rocky, 7: Moist slope, 8: Riverine, 9: Shady Moist, 10: Moist alpine slope

Table 2: Taxonomic description of medicinal plant diversity in Inderkila National Park, District Kullu, Himachal Pradesh, North Western Himalaya.

Sr. No.	Taxonomic groups	Families	Genera	Species	Trees	Shrubs	Herbs	Ferns
1.	Angiosperms	68	260	524	10	67	447	-
2.	Gymnosperms	3	4	6	4	2	-	-
3.	Pteridophytes	9	17	34	-	-	-	34
	Total	80	281	564	14	69	447	34

Table 3: Utilization pattern of Medicinal plants in different disease categories.

Sr. No.	Medical category	Subcategories included	Plant species used	Mode of use
1.	Digestive System Disorders	Diarrhoea, Gastric, Constipation, Indigestion, Liver issues, Piles	220	Decoction, infusion and tonic.
2.	Respiratory Disorders	Cough, Cold, Asthma, Bronchitis, Tuberculosis	185	High-altitude aromatic herbs. Decoction, infusion and tonic.
3.	Skin and External Conditions	Wounds, Burns, Eczema, Pimples, Microbial Infections	140	External use; often overlaps with religious and aromatic practices. Paste and cutaneous application.
4.	Systemic and General Health	Blood purifier, Tonic, Aphrodisiac, Cancer (traditionally)	112	Includes rejuvenators and warming decoctions.
5.	Musculoskeletal Disorders	Joint pain, Rheumatism, Swelling, Bone fractures	98	Includes poultice use and warming decoctions.
6.	Nervous System Disorders	Epilepsy, Hysteria, Nervous tonic, Headaches	85	Combined medicinal plants. Ointment and infusions.
7.	Genitourinary Disorders	Menstrual issues, Diuretic use, Abortifacient, Kidney problems	80	Common in Amchi, Ayurvedic and women's health traditions
8.	Injury and Emergency	Cuts, Snake bite, Emergency poultices	56	Fast-acting treatments, antiseptics, paste and ointment.
9.	Sensory Organ Disorders	Eye issues, Earache, Mouth ulcers, Toothache	44	Less frequent. Decoction, infusion and tonic.
10.	Ethnoveterinary	Animal wounds, Galactagogues, Diarrhoea in cattle	32	Applied externally or mixed in fodder.
11.	Insect/Vector-Borne Diseases	Malaria, Typhoid, Dengue (folk classification)	20	Ethnic and seasonal use; includes febrifuges.
12.	Buddhist /Ritual/Sacred Use (Healing)	Incense, Healing rituals, Cooling decoctions	15	Especially by <i>Khampa</i> and <i>Buddhist</i> communities of Sethan, Shuru and Shaminala villages. Incense based.
13.	Aromatherapy / Fragrance-based	Sedative oils, Perfumes, Sacred smoke	11	Includes <i>Juniperus</i> , <i>Valeriana</i> , <i>Artemisia</i> , <i>Rhododendron</i> . Incense based.

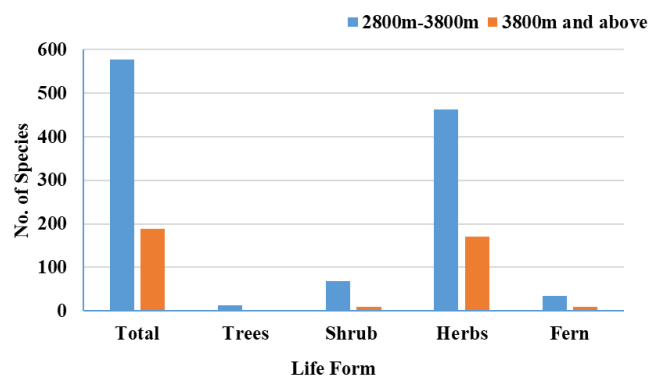


Fig. 2. Altitudinal distribution of medicinal plants in Inderkila National Park, District Kullu, Himachal Pradesh, North Western Himalaya.

Habitat wise distribution. Of the total medicinal plants, maximum (370 spp.) were found in moist alpine slope habitat, followed by moist slope (291 spp.), shady

moist (285 spp.), alpine grassland (270 spp.), dry alpine slope (251 spp.) and riverine (246 spp.) habitats (Fig. 3, Table 1).

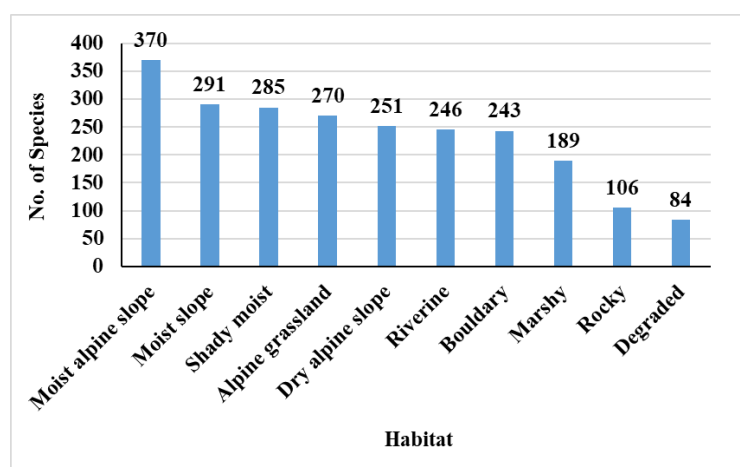


Fig. 3. Habitat wise distribution of medicinal plants in Inderkila National Park of Himachal Pradesh, North Western Himalaya.

Nativity and endemism. Of the total medicinal plants, 372 species were natives and remaining were non-natives to the Himalayan Region, 89 species were found to be near endemics and 15 species were endemics to the Himalayan Region.

Traditional uses. The indigenous communities residing in and around Inderkila National Park possess a profound understanding of the medicinal value of native flora, derived from generations of traditional knowledge. Various plant parts including roots, leaves, bark, flowers, seeds, and rhizomes are customarily utilized to treat a wide array of health ailments. These remedies address conditions affecting diverse physiological systems, such as the skeletal (bone fractures, joint pain), respiratory (cough, asthma, bronchitis), digestive (diarrhoea, gastric discomfort, liver disorders), nervous (epilepsy, headaches), muscular, renal, dermatological (skin infections, wounds), oral (toothaches, mouth ulcers), and reproductive systems. The consistent use of plant-based treatments highlights the reliance on traditional healthcare practices in these high-altitude Himalayan communities, particularly where access to modern medical services remains limited.

Among the various therapeutic applications, digestive disorders emerged as the most commonly treated category, with 220 species employed for ailments such as constipation, indigestion, diarrhoea, liver dysfunction, and haemorrhoids. Respiratory conditions were addressed with 185 species, traditionally used for treating coughs, colds, bronchitis, asthma, and related infections. Dermatological issues, including wounds, burns, eczema, and microbial infections, were treated with 140 species. Furthermore, 112 species were associated with systemic health benefits, functioning as blood purifiers, general tonics, aphrodisiacs, and even traditional remedies for cancer. Musculoskeletal conditions such as rheumatism, joint inflammation, and bone injuries were managed using 98 different plant species. These major categories of use emphasize the critical role of native medicinal plants in fulfilling primary healthcare needs and preserving the cultural and therapeutic heritage of Himalayan societies.

Different plant parts such as leaves (184 spp.), followed by whole plants (153 spp.), roots/ rhizome (142 spp.), aerial parts (91 spp.), flowers (45 spp.), seeds (31 spp.), fruits (28 spp.), fronds (26 spp.), stems (22 spp.), barks (19 spp.), shoots (13 spp.), latex/sap/resin/oil (11 spp.),

wood/ culms (10 spp.) and, bulbs/tubers (8 spp.) were used for making herbal preparations to cure the various ailments (Fig. 5). The study revealed that the inhabitants of Sethan and Prini villages are more dependent for using forest products as compared to surrounding villages i.e., shaminala, Jagatsukh, and Shuru. Inderkila National Park, nestled in the ecologically diverse landscapes of the Western Himalayas, harbors an exceptional variety of elite medicinal plant species. These species are not only central to traditional healthcare practices but also hold high pharmacological and commercial value, warranting urgent conservation attention. Among the most prominent is *Podophyllum hexandrum*, an endangered species extensively used for liver disorders, cancer therapies, and as a purgative. *Dactylorhiza hatagirea*, listed as critically endangered, is known for its rejuvenating and tonic properties, particularly in treating bone injuries and general weakness. *Aconitum heterophyllum*, a vulnerable species, is highly valued in alpine regions for treating diarrhoea, fever, and altitude sickness.

Picrorhiza kurroa, locally known as Kutki, is widely utilized as a liver tonic and for treating asthma, fevers, and various dermatological issues. Its rhizomes contain iridoid glycosides that account for its therapeutic efficacy. Likewise, *Valeriana jatamansi* and *Nardostachys jatamansi* are renowned for their nervine and sedative properties, commonly used in treating insomnia, epilepsy, and anxiety. *Lilium polyphyllum*, although rare, is used in traditional medicine for wound healing and treating physical weakness. *Angelica glauca* is another threatened species known for alleviating respiratory and digestive disorders. *Rheum australe* (Himalayan rhubarb) is traditionally used as a purgative and anti-inflammatory agent, effective against constipation, liver ailments, and skin conditions. *Taxus*

wallichiana, a conifer species listed as endangered, is locally known for its use in treating coughs and asthma and globally significant as a source of paclitaxel, a well-known anti-cancer compound. *Swertia cordata*, closely related to *Swertia chirayita*, is used in treatment for fever, diabetes, and liver problems. *Hedychium spicatum*, an aromatic rhizomatous herb, is frequently used to manage bronchitis and asthma, while *Bergenia ciliata* serves as a remedy for kidney stones and wounds. *Delphinium denudatum* is recognized for its application in treating neurological disorders and pain, and *Saussurea obvallata* holds both ritual and medicinal significance in Himalayan healing traditions. Adding to this rich pharmacopoeia, *Hymenolaena candollei* is traditionally utilized for its analgesic, antioxidant, and anti-inflammatory actions and used for gastrointestinal and gynecological issues. *Meconopsis aculeata*, the iconic Himalayan blue poppy, is revered for its potent anti-inflammatory properties and is traditionally used in conditions such as pneumonia, hepatitis, and edema. *Saussurea costus* (Kuth), now endangered due to overharvesting (locally cultivated), is a vital high-altitude herb whose roots are widely used to treat bronchitis, digestive issues, and rheumatism. Other significant species include *Allium wallichii*, used for its antimicrobial and carminative properties in treating coughs and stomach ailments; *Fritillaria cirrhosa*, known for its efficacy in respiratory complaints such as asthma and persistent coughs; and *Polygonatum verticillatum*, also called Salam Mishri, which was employed as a general tonic and aphrodisiac in traditional systems. Finally, *Arnebia benthamii* (Ratanjot) was highly valued for its wound-healing capacity, attributed to its bioactive compounds including alkannins and flavonoids, which provide antimicrobial, anti-inflammatory, and antioxidant benefits (Fig. 4).





Fig. 4. Various Medicinal plants species of Inderkila National Park.

Together, these elite medicinal plants underscore the ethnomedicinal richness and ecological sensitivity of Inderkila National Park. Their continued survival and sustainable use depend on integrated conservation strategies, including both *in-situ* and *ex-situ* methods, community-based cultivation programs, awareness

generation, and alignment with national medicinal plant policy frameworks. Preserving these species is vital not only for the well-being of local communities, but also for the future of global traditional medicine systems and biodiversity conservation efforts.

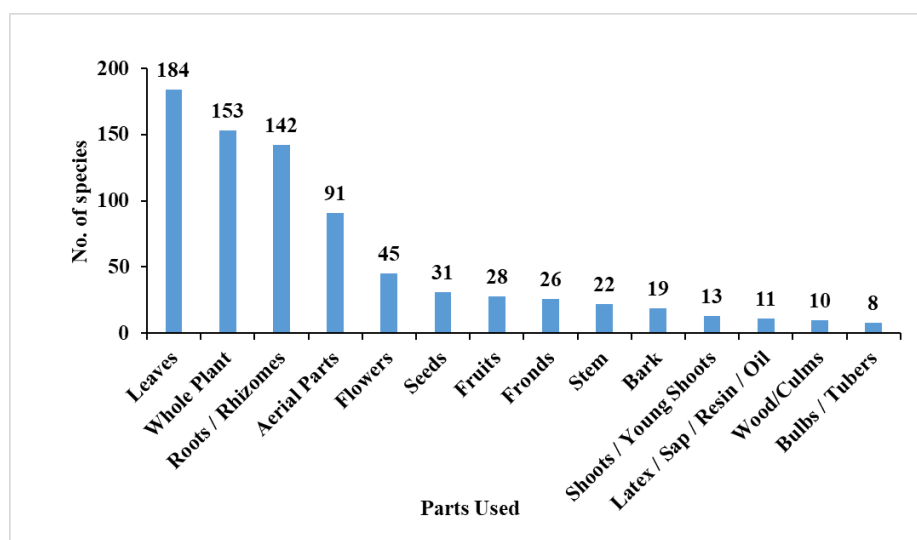


Fig. 5. Statistics of medicinal plant part(s) used.

DISCUSSION

Inderkila National Park, situated in the upper reaches of the Kullu district in Himachal Pradesh, is a critical ecological zone within the northwestern Himalaya. Established in 2010, the Park spans approximately 104 square kilometers and ranges from 2,800 to 5,200 meters in elevation. This altitudinal variation gives rise to diverse habitats, including subalpine forests, alpine meadows, krummholz vegetation, and glacial terrains. These varied microclimates support a remarkable diversity of plant life, including a large number of medicinal and aromatic plant species that hold both ecological and ethnobotanical significance (Shashni *et al.*, 2019). The present study documented 598 economically important plant species within the park, a number that reflects not only the floristic richness of the area, but also the continued reliance of local and migratory communities on traditional healthcare systems. Remote villages located near the park often lack immediate access to modern medical infrastructure and as a result, residents frequently depend on locally available plants to treat common ailments and chronic conditions. The recorded species include many rare and high-value taxa, such as *Podophyllum hexandrum*, *Polygonatum verticillatum*, *Trillium govanianum*, *Lilium polyphyllum* (Kundra *et al.*, 2020 a & b), *Rheum australe* (Prakash *et al.*, 2020), *Angelica glauca*, *Swertia cordata*, *Taxus wallichiana*, and *Meconopsis aculeata*. These species are used to manage a wide range of ailments, including fever, wounds, liver disorders, respiratory infections, gastrointestinal problems, and even cancers.

In addition to these, several other species of significant medicinal value were recorded, such as *Aconitum heterophyllum*, known for treating high-altitude sickness and digestive disorders (Paul *et al.*, 2020); *Bergenia ciliata*, traditionally used for urinary stones; *Valeriana jatamansi* and *Saussurea costus*, both used in the management of insomnia, anxiety, and neurological conditions; and *Dactylorhiza hatagirea*, prized as a restorative tonic. The high-altitude rhizomes of *Picrorhiza kurroa* are widely recognized for their

hepatoprotective and antipyretic properties, while *Delphinium denudatum* and *Saussurea obvallata* are used for their therapeutic applications in skin disorders, respiratory issues, and inflammation. Such species are not only integral to local health systems but also represent valuable resources for pharmaceutical industries (Negi & Samant 2020; Sharma *et al.*, 2022). Despite this rich biological and ethnobotanical heritage, Inderkila National Park currently lacks targeted conservation initiatives for medicinal plants. In contrast, other districts of Himachal Pradesh, such as Chamba, Mandi, and Sirmour, have successfully implemented cultivation and conservation programs under the National AYUSH Mission (NAM), which promote the scientific cultivation of priority medicinal species (Paul *et al.*, 2019 a & b) by offering financial assistance and technical guidance to local inhabitants and commercial farmers (Rana *et al.*, 2020). The absence of similar programs in Inderkila suggests a considerable gap between biodiversity potential and management action (Marpa *et al.*, 2020). Given the increasing demand for medicinal plants in national and international markets, many of the high-value species are under mounting pressure due to overharvesting and habitat degradation (Sharma & Samant 2019). Migratory communities such as the *Gujjars*, *Gaddis*, who frequently utilize forest areas for grazing and others like *Khampa* and *Buddhist* (Rathore *et al.*, 2020) for resource collection, further contribute to the extraction pressure, often unknowingly leading to unsustainable harvesting.

The results of this study also resonate with previous floristic assessments conducted in the Indian Himalayan Region. The number of species recorded in Inderkila is comparable to those reported from Parvati Valley (402 species; Sharma *et al.*, 2014 and 292 species; Barman *et al.*, 2021 a & b), Lahaul-Spiti (331 species; Sharma *et al.*, 2017 a & b), and Kanawar Wildlife Sanctuary (390 species; Devi *et al.*, 2019), and is notably higher than those from the Manali Wildlife Sanctuary (270 species; Rana & Samant, 2011), Kalatop-Khajjiar Sanctuary (229 species; Kumar *et al.*, 2019), and Khokhan

Wildlife Sanctuary (377 species; Kumar *et al.*, 2019). This highlights the unique ecological setting of Inderkila National Park, which deserves focused attention in terms of ecological research, conservation planning, and policy intervention.

CONCLUSIONS

The present investigation reveals that Inderkila National Park is a repository of considerable medicinal plant diversity, with 598 species identified, including several native, near-endemic, and endemic taxa. The continued dependence of local communities on forest-based medicinal resources for primary healthcare underscores the Park's role not only in biodiversity conservation, but also in supporting rural health and livelihoods. However, the lack of structured cultivation and conservation mechanisms within the park boundary poses a serious risk to the long-term viability of these resources.

To address these challenges, it is crucial to develop comprehensive programs that promote the sustainable use, conservation, and propagation of medicinal plants within and around the park. This includes involving local communities in participatory conservation and cultivation efforts, integrating their traditional knowledge into management practices, and raising awareness about sustainable harvesting. Providing capacity-building programs and training in plant propagation, herbal formulation, and value addition can further strengthen the livelihoods of local residents while simultaneously reducing pressure on wild populations. Encouraging the cultivation of high-demand species such as *Picrorhiza kurroa*, *Valeriana jatamansi*, *Dactylorhiza hatagirea*, and *Angelica glauca* on private lands and community-managed landscapes can help divert extraction away from core forest areas.

Furthermore, in-situ and ex-situ conservation strategies should be developed (Lal *et al.*, 2019 and 2020), including the establishment of herbal gardens, seed banks, and conservation nurseries. The alignment of these initiatives with national programs such as the National AYUSH Mission and State Medicinal Plant Boards can facilitate access to technical expertise, financial resources, and policy support. Ecological monitoring of key species and their habitats should be carried out regularly using robust scientific methods to detect trends, assess threats, and adapt management strategies accordingly.

In conclusion, by combining biodiversity conservation with community engagement, sustainable livelihoods, and scientific innovation, Inderkila National Park has the potential to become a leading example of medicinal plant conservation in the Indian Himalayan Region. Such an integrated approach will not only safeguard a valuable ecological resource, but also contribute meaningfully to the health security and economic resilience of the region's mountain communities.

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